

The Elementary School Journal

Volume XXXVI

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CRITICAL ISSUES IN THE ADMINISTRATION OF THE NATIONAL YOUTH PROGRAM

It is estimated that there are in the United States approximately four million youth between the ages of sixteen and twenty-five who are not in school and who are unemployed. In order to help members of this group to find employment or to continue their education, President Roosevelt, in an executive order issued June 26, 1935, established the National Youth Administration. The objectives of the Youth Administration are outlined as follows:

1. Find employment in private industry for unemployed youth. Work designed to accomplish this shall be set going in every state in order to work out with employers in industry, commerce and business, ways and means of employing additional personnel from unemployed young people.
2. Train and retrain for industrial, technical and professional employment opportunities.
3. Provide for continuing attendance at high school and college.
4. Provide work relief upon projects designed to meet the needs of youth.

According to the cost estimates of the program, job or vocational training will be provided for approximately 150,000 youth; about 100,000 pupils will be given aid in continuing their work in high

school; needy young men and women to the number of 120,000 will be aided in continuing their college education; aid will be extended to a selected group of several thousand graduate students; and work relief will be provided for approximately 150,000 unemployed youth. It would seem, therefore, that the major objectives of the program are educational.

The executive order places the National Youth Administration under the general supervision of the administrator of the Works Progress Administration and under the immediate supervision of an executive director. A National Advisory Committee, consisting of representatives of labor, business, agriculture, education, and youth, has been appointed by the President. The immediate administration of the program is under an Executive Committee and an executive director. In each state there will be established a State Youth Division, which will be headed by a State Advisory Committee to be appointed by the National Advisory Committee with the aid and consent of the executive director of the National Youth Administration. Each state division will be administered by a state director, who will organize local youth committees in counties or communities or wherever conditions may warrant.

Upon signing the executive order, the President said: "I have determined that we shall do something for the nation's unemployed youth because we can ill afford to lose the skill and energy of these young men and women. They must have their chance in school, their turn as apprentices and their opportunity for jobs—a chance to work and earn for themselves."

The objectives of the National Youth Administration are highly commendable. The plan of administration, however, is unfortunate. It is objectionable, and highly so, because it places control of the program almost exclusively in the hands of individuals who have had relatively little experience in dealing with educational problems. The plan of administration which has been adopted practically ignores that large group of educational leaders in this country whose professional competence has been demonstrated. There is, for example, in Washington a capable United States Commissioner of Education, whose training and experience have been such as to qualify him particularly well for the direction of a program of this

kind. He was not, however, selected as the executive director of the National Youth Administration; the executive director is an important member of the staff of the Works Progress Administration. The only opportunity that the Commissioner of Education will have to influence policies will be through his membership on the Executive Committee, the chairman of which is a person of no broad educational experience. In working out the program within the states, it remains to be seen whether the executive director will attempt to secure the services of experienced educational leaders or whether he will make his appointments from a lay personnel.

There are many reasons why the federal government should subsidize education in the states. It would be most unfortunate, however, for the federal government to assume any large measure of control of the educational policies of the nation; it would be nothing short of disaster for the federal government to assume such control and at the same time ignore the educational leadership of the country.

In a recent address, entitled "The Federal Youth Program: Shall We Accept a Centralized and Political Administration of Public Education?" George Drayton Strayer, of Teachers College, Columbia University, points out what he considers the objectionable features of the National Youth Administration. In order to bring to the attention of our readers some of the more important issues raised by Professor Strayer, we quote portions of his address.

This centralization of authority in the hands of a federal officer, with the lines of authority reaching down to the states and to the communities through a personnel selected by the central office, is contrary to our American traditions in the administration of education. It may be the beginning of a movement which will destroy the independence of our public schools from political control. At least, it calls for careful analysis by those who believe that it is desirable to continue the practice of decentralization in the administration of our schools.

It is not without significance that the National Advisory Committee on Education, reporting in 1931, emphasized the danger of partisan or class propaganda if allowed to operate on the plastic and uncritical minds of youth at school. It found in the decentralized system of management and control of schools the one absolutely reliable antidote to the easy capture of the schools by the propagandists of an economic, social, and political cult.

But even if there were no danger, however remote, of the use of such a central organization for propagandist purposes, the organization provided should still be subject to criticism. The organization sets up in Washington the office of the

executive director, a final authority who must determine the acceptability of the program developed in the several states. In like manner, the state directors are made responsible for the programs in localities within their territory. It seems entirely probable that the state and local administrative officers will be chosen from among those who are acceptable to the politicians.

If a central advisory office were to be used, one might well ask why the Office of Education, the agency in the federal government responsible for the promotion of educational enterprises, was not selected. It is headed by an able administrator, and it has a staff of competent specialists. They have been at work upon the problems which confront American youth.

But still more importantly, the administrative organization provided fails to recognize the fact that the largest and the most efficient youth organization in the United States is to be found in the state and local offices for the administration of public education. During the past hundred years in the United States we have developed in the field of education the most certainly professional administrative service known in our democracy. Any scheme which fails to recognize the competence and efficiency of state and local administration of public education not only is wasteful but also invites difficulties in the administration of the youth program.

The objectives of the National Youth Administration are primarily educational. . . .

Now, it is exactly this educational program which state and local educational authorities have been dealing with and have partially solved. It is estimated that there are as many as four million young men and women between sixteen and twenty-five years of age who are not in school and for whom no employment is available. If they are to be trained or retrained, if they are to be given vocational counseling, if they are to continue their work in high school and college, it is precisely the state and local authorities now existing that must accept responsibility for this enterprise. It is wasteful and inefficient to set up a new organization. Even the finding of jobs for those who are to be put on the work-relief program might certainly be better done by agencies already existing than by newly created ones. The responsibility in any event will center in the Works Progress Administration.

There is another good reason why the form of administration proposed is unwise. Assuming an administrative expense of as little as \$20,000 per state, we have approximately \$1,000,000, or enough to provide aid for at least 7,500 college students, spent for administrative organizations which duplicate existing agencies. There must be added to this cost the losses due to the inevitable inefficiency of agencies newly created, particularly where appointments may be politically dictated.

There can be no doubt concerning the need for support for an educational program for the youth of the country. The fifty million dollars made available is altogether too small. To carry forward the program at all adequately would probably require five times the amount that is to be spent. But a matter of even

greater importance is the determination of sound policy now, for in these emergency undertakings we may form the pattern which will prevail in the support of education and in its administration in the years which lie ahead.

THE EXPANSION OF GRADUATE STUDY IN THE UNITED STATES

During the past three decades the popularization of education in this country has been carried to a point that is little short of amazing. During each decade since 1910 enrolment in the high school has approximately doubled until today the United States Office of Education estimates that there are enrolled in public and private high schools combined no less than 70 per cent of the youth of high-school age. Expansion at the college level has been somewhat less phenomenal, and yet it is a striking fact that in 1930 enrolments in collegiate departments of universities, colleges, professional schools, and junior colleges were more than eleven times as great as the enrolments in these institutions in 1890. More students were enrolled in these collegiate departments in 1930 than were in attendance in secondary schools in 1900. A recent bulletin of the United States Office of Education, entitled *Graduate Study in Universities and Colleges in the United States* (Bulletin Number 20, 1934), indicates that this upthrust of youth into secondary school and college has been accompanied by an equally phenomenal expansion of graduate study.

Before 1870 little graduate work was being carried on in the higher institutions of this country. For example, in 1870-71 the numbers of graduate students were reported as follows: Harvard University, 8; Yale University, 24; Princeton University, 3; University of Michigan, 6; Lafayette College, 3. As will be noted in Table I, taken from the bulletin mentioned, since 1871 there has been a steady increase in the number of graduate students. For the decade ending in 1900 graduate enrolments more than doubled over the preceding decade, and in each of the two succeeding decades the enrolments nearly doubled. In 1930 enrolments were more than three times as great as those in 1920. In 1890 there were 2,382 graduate students enrolled; in 1930 there were 47,255, an increase of 1,884 per cent. More significant still is the fact that graduate enrolments increased from 15,612 in 1920 to 47,255 in 1930.

From Tables II, III, and IV, also taken from the government bulletin on graduate study, it may be seen that there has been a corresponding increase in the number of higher degrees awarded by American colleges and universities. Attention is directed especially to the fact that the number of higher degrees awarded increased from 4,853 in 1920 to 16,832 in 1930. In 1920 American higher institutions conferred 3,873 Masters' degrees; in 1932 the number of such degrees conferred was 19,339. The recent popularization of the degree of Doctor of Philosophy has been equally striking. In 1920, 532 such degrees were conferred; in 1928, 1,447; and in 1930, 2,024.

TABLE I

GROWTH OF GRADUATE-STUDENT ENROLMENTS FROM 1871-72 TO 1929-30

Year	Number of Graduate Students
1871-72.....	198
1880-81.....	460
1890.....	2,382
1900.....	5,831
1910.....	9,379
1920.....	15,612
1930.....	47,255

The popularization of secondary education forced the high school to reorganize its curriculum to meet the needs of a constituency diverse in its ability and in its interests. The popularization of the college is having the same effect on that institution. There is little doubt that the expansion of graduate study will likewise force a reorganization of the graduate curriculum. Graduate study in this country has from the beginning placed special emphasis on preparation for research, but unmistakable evidence is appearing that this emphasis on research as one of the chief goals of all graduate study is being seriously challenged. The sheer popularization of graduate study constitutes such a challenge. It may be seriously questioned whether American higher institutions have the resources to provide effective training in research for the two thousand Doctors and the twenty thousand Masters upon whom degrees are conferred annually. Moreover, it is reasonably certain that the number of students seeking higher degrees will continue to increase. In this connection it should be pointed out that social conditions in this country

TABLE II
INCREASE IN ADVANCED DEGREES GRANTED SINCE 1890

YEAR	NUMBER OF ADVANCED DEGREES		
	Men	Women	Total
1890.....	.....	.....	1,135
1900.....	1,628	324	1,952
1910.....	1,939	602	2,541
1920.....	3,457	1,306	4,853
1926.....	7,700	3,751	11,451
1928.....	8,976	4,858	13,834
1930.....	10,693	6,139	16,832

TABLE III
INCREASE IN MASTERS' DEGREES GRANTED SINCE 1890

YEAR	NUMBER OF MASTERS' DEGREES		
	Men	Women	Total
1890.....	.....	.....	70
1900.....	1,405	339	1,744
1910.....	1,821	619	2,440
1920.....	.....	.....	3,873
1926.....	.....	.....	7,005
1928.....	7,204	4,582	11,766
1930.....	8,766	5,729	14,495
1932.....	.....	.....	19,339

TABLE IV
INCREASE IN PH.D. DEGREES GRANTED SINCE 1876

YEAR	NUMBER OF INSTITUTIONS	NUMBER OF PH.D. DEGREES		
		Men	Women	Total
1876.....	25	....	....	44
1890.....	....	....	....	164
1900.....	....	322	20	342
1910.....	38	365	44	409
1920.....	44	439	93	532
1926.....	62	1,115	187	1,302
1928.....	69	1,249	198	1,447
1930.....	74	1,692	332	2,024

are such that we cannot, as in Germany, arbitrarily limit enrolments in higher institutions. Then, too, the needs of the graduate students are becoming increasingly diverse. Undoubtedly, a sharper distinction will have to be drawn between training for teaching and administrative positions and training for research. Whatever the precise solution of the issues may be, changes in the requirements for higher degrees seem inevitable.

EVIDENCE OF THE EFFECTIVENESS OF THE COUNCIL-MANAGER FORM OF CITY GOVERNMENT

The schools and the municipal government of a community are competitors, in a way, for the taxpayer's dollar. Efficient and economical municipal administration is likely to make available additional revenue for the support of schools. Even more important, perhaps, is the fact that a community which insists on efficient municipal administration is likely to insist on efficient school administration as well. Superintendents and teachers, therefore, have a particular interest in that form of city government which provides an adequate public service at the lowest cost. A study recently completed by the National Municipal League indicates that during the depression years cities having the council-manager type of organization have provided a more adequate public service at a lower cost than have cities of non-manager types. The following quotation from a release of the league summarizes some of the major conclusions of the study.

From a comparative tax survey of 261 cities of over 30,000 population, it was found that the average adjusted total tax rates for cities with managers were less in every population class than the average rates for cities with other forms of government. In the 300,000 to 500,000 population class, for example, Cincinnati and Rochester, council-manager cities, had the lowest adjusted rates.

The favorable showing of manager cities has not been obtained at a sacrifice to services, according to the league's report. In fact, examination of the records of council-manager cities shows that extended and more efficient public services have accompanied reductions in tax rates.

In all cities, regardless of their form of government, police forces were maintained with very little change throughout the period 1929-33. An interesting fact, however, brought out by the league's study of Uniform Crime Reports, was that at the beginning of this period and throughout it cities with managers were policed with smaller forces than cities with other types of government. In 1933

manager cities with over 100,000 population had one less police-department employee per 3,000 population than non-manager cities of similar size.

During the depression manager cities cut their health appropriation 7.5 per cent less than the average cut in the large cities of the country, and they began restoring services earlier. In the recent City Health Conservation Contest conducted by the American Public Health Association and the United States Chamber of Commerce council-manager cities received proportionally a larger percentage of the awards.

Council-manager cities, it was discovered, devote a larger share of their budgets to recreation than non-manager cities. During the recent years of financial stringency they cut their recreation expenditures nearly a third less than the non-manager cities. While appropriations were cut, more than one-half of the manager cities, rather than cutting down on recreation services, increased the number of playgrounds, community centers, athletic fields, and other recreational units.

Library budgets were cut 8.6 per cent less in the manager cities studied than in the non-manager cities of the same population classifications. The manager cities allowed more for libraries in their budgets than the cities with other forms of government. In 1929 while the non-manager cities were spending 71 cents per capita for library services for the public, the city-manager cities were allowing 77 cents. In 1933, after budget cuts, the non-manager cities were allowing only 61 cents per capita while the manager cities allowed 72 cents.

NEEDED RESEARCH IN THE PREVENTION OF DELINQUENCY

In a recent issue of the *University of Michigan School of Education Bulletin*, Willard C. Olson outlines in some detail a program of research designed to discover effective procedures for the prevention of delinquency. Professor Olson's proposal is so timely that we feel justified in quoting his statement of it at some length.

The widespread popular and professional interest in delinquents and criminals makes it especially pertinent to inquire as to the nature of the next step in research, if progress is to be based on demonstrated facts rather than wishful thinking and authoritarian pronouncements. It is clear that there is urgent need for fundamental research on the numerous problems of education, psychology, sociology, medicine, and other disciplines that underlie the understanding, prediction, and modification of human behavior. Such investigations must go on, if procedures of known effectiveness are to be developed. Admitting that this background is at present inadequate, but assuming that we do have a large body of demonstrated principles of procedure, what types of research can be undertaken to demonstrate that active programs of prevention are socially justifiable?

We need here the application on a large scale of the general methods of ex-

perimental investigation which have been useful on so many narrower problems. To demonstrate the effectiveness of the application of present knowledge in the prevention of delinquency, experiments of the following type should be inaugurated in various centers:

1. Select in each center 2,000 (or multiples of 2,000) children in the first grade of the public schools. The children selected would be those whose "delinquency expectancy" is high as measured by present methods. Social, psychological, and medical data would be gathered for each according to the best known techniques. One or more centers might profitably begin at nursery-school ages rather than in the first grade when many characteristics already appear rather definitely fixed.

2. Divide the group of children selected into two groups of 1,000 each. Group A would be designated as the experimental group, and Group B as the control group.

3. With Group B, the control group, do nothing. They would receive the types of attention that communities ordinarily give to children.

4. With Group A, the experimental group, put into operation any one or a combination of programs which give any reasonable hope of effectiveness as determined by present knowledge. Suggestions of the experimental variables to be used in this group would be programs designated as character education, child-guidance clinics, parent education, changed emphases in the curriculums and methods of schools, community approaches, special classes and schools, and various types of developmental supervision. It would be desirable to set up a series of experiments in various cities in which one or another of these emphases might constitute the experimental factors. Programs should be continued for at least ten years. At the end of the period, clear the 2,000 records through the confidential exchange and secure a record of court and institutional experiences for each child. More subtle measured appraisal should also be secured. The instruments might include tests of social information, attitudes, and performance, and records of behavior problems.

5. At the end of the ten-year period judge the possibilities of prevention by differences in the records for Group A and Group B.

6. At the end of another decade check again so as to determine the effectiveness of the program in relation to adult criminality.

7. Publish the results widely with such generalizations as appear both economically and scientifically sound.

The difficulty of establishing and carrying to conclusion a program such as has been outlined above should not be minimized. Personnel would need to be developed. Continuity of planning, co-operation, and persistence of motive are required for the successful completion of long-time projects. These could be insured by institutional responsibility. The experiments, however, should go some distance in taking the possibilities of prevention out of the field of speculation. While the researches would be expensive, the cost would be negligible, if they laid a pattern for the general support of preventive measures. An estimated

annual crime bill of approximately thirteen billion dollars deserves the expenditure and risk of considerable amounts for scientific studies and demonstration in the field of prevention. Governmental agencies should eventually recognize research in human behavior and social relations as a public function on a scale commensurate with its importance.

We have usually allowed cases of social and personal maladjustments to mature without much attention until they become acute through some dramatic precipitating circumstance. We then find that our personal services and social institutions are entirely inadequate to the task of restructuring what it has taken a considerable part of the developmental period to produce. We cannot be optimistic about the corrective or curative values of late approaches with present knowledge through clinic, court, or correctional institutions.

It would appear that the next major research strategy would be to begin both constructive and remedial programs at early life ages and continue them over a protracted period.

A NOVEL VENTURE IN THE USE OF FILMS IN CHARACTER EDUCATION

It has long been felt that motion pictures might be used successfully as instruments of character education. Perhaps the chief difficulty has been the cost of preparing films for this purpose. The Committee on Social Values in Motion Pictures seems to have obviated this difficulty by a very simple plan. The Motion Picture Producers and Distributors of America has agreed to produce a number of one-reel films extracted from current feature plays. In these films well-known actors portray vividly situations involving basic social issues and character problems. The films are designed for use by schools, churches, or other social agencies. After viewing the films, pupils and teacher, or other discussion leader, will discuss the problems portrayed. In this way it is hoped that pupils may be led to arrive at constructive conclusions of their own.

In a pamphlet describing the plan the essential purpose of each of a number of the films is described as follows:

"Huckleberry Finn," to cultivate social democracy and to substitute it for snobbishness. "Broken Lullaby," to break down racial prejudices, especially those engendered by war. "Sippy," . . . to promote an understanding of the meaning of friendship and to inspire a willingness to express it in constant helpfulness. "Tom Sawyer," to develop satisfactions in work as well as play. "Tom Brown of Culver," to develop respect and emulation of those who have served their country well. "Alias the Doctor," to develop a dynamic purpose in life and the accompanying self-control which is necessary for the success of an individual

and for the happiness of everyone associated with him. "Her Sweetheart," to uproot greed which so quickly deteriorates character when it becomes the dominating motive in life. "The Band Plays On," to inspire habits of co-operation, respect for the training process, and desire to fulfil obligations.

Other films, twenty in all, have been produced with similar specific purposes in view. This series of motion pictures bears the general title "Secrets of Success."

The committee has prepared a manual for the guidance of teachers and discussion leaders who may wish to use the films. The first part of the manual includes a discussion of the general plan of the series, a description of the procedures and methods to be followed in the use of the films, and a list of directions with respect to the distribution and the showing of the pictures. The second part sets forth briefly the more commonly recognized objectives of character education and the principles observed in the selection and the editing of the pictures.

The use of these films is still in the experimental stage. The committee makes the following statement with respect to their distribution.

In view of the fact that 1934-35 is considered a "demonstration period" for "Secrets of Success," and that the number of prints is very limited, formal application for use of the pictures in this series must be made. The committee is compelled by circumstances to release these pictures to the organizations and communities where the plan seems to give promise of the best experimental results.

Persons interested in participating in the use of these films should communicate with the chairman of the committee, Dean Howard M. LeSourd, Boston University, Boston, Massachusetts.

REQUIRING PROFESSIONAL COMPETENCY OF THE SCHOOL COUNSELOR

Many superintendents and principals hesitate to undertake organized programs of guidance because they are not able to secure the services of professionally trained counselors. In most instances, perhaps, counselors have, up to the present, simply grown into their positions. The basis of selection has often been aggressiveness, popularity with pupils, sensitivity to the problems of youth, or lack of resistance to the assumption of new duties. The result has been that

a great deal of the counseling has been of questionable value. It is patent, of course, that the duties of the counselor are such as to require a person of high professional competence, and yet, so far as we are aware, only three states—California, New York, and Pennsylvania—require a special certificate for counselors. We quote herewith the requirements for the counselor's certificate recently adopted by the New York State Education Department.

Definition.—"Counselor" means the staff member who works with individual pupils and co-ordinates the efforts of parents, community agencies, teachers, specialists, and administrative officers in the educational adjustment, character development, and post-school plans of individual pupils. . . .

Certificate required.—A teacher or other staff member who devotes at least 50 per cent of his time to counseling shall hold a certificate valid for such service in the public schools.

PROVISIONAL CERTIFICATE

1. *Preparation.*—The candidate shall have completed a four-year curriculum approved for the preparation of secondary-school teachers, or approved equivalent preparation, and in addition six semester hours in approved graduate courses; said preparation shall have included twenty-four semester hours in appropriate courses distributed according to the following schedule: counseling, 6-8 semester hours; adolescent development or psychology for teachers and methods of teaching in secondary schools, 6-10 semester hours; observation and supervised practice teaching, 2-6 semester hours; history, philosophy, problems and/or principles of education, 4-8 semester hours.

2. *Experience.*—The candidate shall have completed five years of appropriate experience. A candidate for the counseling certificate shall have had experience other than teaching which has given him an appreciation of the problems which young people will face upon leaving the public school. Successful commercial, industrial, trade, or professional experience is desirable. Breadth as well as length of experience is sought; personnel, supervisory placement, and interviewing experience are assets.

3. *Certificate.*—The candidate shall have been issued a certificate valid for teaching in the public secondary schools or a statement of eligibility for such a certificate.

4. *Validity.*—The provisional certificate shall be a valid license for counseling in the public school for five consecutive years.

5. *Extension of time validity.*—The validity of a provisional certificate shall be extended for five consecutive years by the commissioner of education on evidence that the counselor has completed three years of counseling experience during the preceding five-year period and fifteen semester hours in approved graduate courses in addition to the minimum preparation prescribed for its issuance; said additional preparation shall include: guidance, 4-8 semester

hours; psychological tests and/or mental hygiene, 2-4 semester hours; economics and/or sociology, 2-4 semester hours; electives, 5-7 semester hours.

PERMANENT CERTIFICATE

1. *Preparation.*—The counselor shall have completed thirty semester hours in approved graduate courses; said preparation shall include:

Courses	Semester Hours
Guidance and counseling	12-16
Administration of guidance program (including history, principles, problems and procedures of guidance; pupil curricular and extra-curriculum problems; vocational guidance, loans and scholarship funds, cumulative-record procedures, placement procedures, and practices).	6-8
Research and studies in educational and occupational opportunities.	4-6
Methods of teaching guidance classes.	2-4
Psychological tests and mental hygiene.	8-10
Mental and aptitude measurements.	4-6
Personality and social adjustment.	2-3
Mental hygiene.	2-3
Sociology and economics.	6-8
Sociology (including continuity relationships, social welfare, racial problems, delinquency, the family and the home).	2-4
Economics and labor problems.	4-6

2. *Experience.*—The counselor shall have completed five years of appropriate experience in counseling, three years of which during the preceding five-year period shall have been in the public schools of New York State.

3. *Certificate.*—The counselor shall have been issued a provisional form of the counselor's certificate valid in the public schools of New York State.

4. *Validity.*—The permanent certificate shall be a valid permanent license for counseling in the public schools with or without a requirement of further study and training.

AN AUTHOR REPLIES

The March, 1935, issue of the *Elementary School Journal* carried a statement by W. L. Dix in which he criticized certain findings of an article on "Summer-Time Forgetting" written by O. W. Kolberg and published in an earlier issue of this *Journal*. We publish herewith Mr. Kolberg's reply to Mr. Dix's criticism.

The first criticism of my article "A Study of Summer-Time Forgetting" which Mr. Dix makes is that the first conclusion is invalid. The complete conclusion

is: "*In the case of easy material*, improvement in knowledge of subject matter rather than forgetting takes place during the summer months." Mr. Dix omitted the first phrase of this conclusion. This omission changes the meaning entirely. Had he used my statement in its entirety, he would have found it acceptable. He should also have considered the fourth conclusion, for it states definitely that "difficult subject matter is forgotten by all intelligence-quotient groups to a greater extent than is easy subject matter." These conclusions show that I have considered different grades of difficulty in subject matter and find that retention ability varies with the changes in difficulty. They show that I have concluded that forgetting takes place when the subject matter is of sufficient difficulty. In stating that, when the entire range of tasks in the test I used is considered, there is improvement rather than forgetting, I was showing that, if we are to measure forgetting, we must use a test that covers material of sufficient difficulty to insure a change in the score between the first test and the second. Later investigators in this field should observe this point when selecting the test to be used.

It seems strange that Mr. Dix should find it difficult to believe that there may be improvement, as shown by test scores, during the summer vacation, for on page 245 of the report of his study appearing in the Eighth Yearbook of the Elementary School Principals he states that 21 per cent of his 150 pupils had made gains during the summer months. This improvement is in excess of that which my study shows, for the group he speaks of had a median intelligence quotient of 80 and a minimum of 43, while the group with which I deal had only 7 cases with intelligence quotients below 80 and 156 with intelligence quotients above 80. Had the group of which Mr. Dix speaks been a high intelligence group, it is reasonable to suppose that even more than 21 per cent would have made improvement. Thus, it is only fair to conclude that the findings both of Mr. Dix's survey and of mine are true but that mine deals with a group of pupils who had higher intelligence ratings and who consequently reacted differently to the summer vacation.

The second objection raised by Mr. Dix is that "the learning period for all the facts in these tests is not constant. . . . This situation affects the ability to recall as much as the difficulty of the questions." It seems to me that this situation exists in all tests, including reading and arithmetic tests as well as history tests. If differences in the learning period are unfavorable in any test, they should be most unfavorable in the seventh-grade history test; for in this subject much new information is given the pupil during the seventh grade, while in the reading and arithmetic tests spoken of by Mr. Dix, much of the material tested is an accumulation of years of repetition of fundamental skills. As he states on page 248 of the Yearbook above quoted, one would expect the retention to be better in connection with familiar subject matter than when less familiar subject matter is used. Conclusion 4 of my article agrees with this statement exactly.

It appears, therefore, that these two surveys of summer-time forgetting discover the same truths: first, that pupils with low intelligence (and the intelli-

gence quotient must be below 90 in order to be rated low) forget more during the summer months than those with higher intelligence ratings and, second, that some pupils make improvement during the summer months, at least as far as test scores show.

I believe that a few comments on my study will help point out why I have reached certain conclusions. First, my study has gone farther than that of Mr. Dix in discovering where improvement arises. Through my classification of subject matter into "easy" and "difficult," I have been able to show that, when learning has been thorough, there is little if any forgetting during the summer months (when the median for the group as a whole is used as a measure) but that, where learning has been less thorough, retention is not so good. Also, by classifying pupils into intelligence groups, I have been able to discover that the differences in abilities to retain information become measurable when the intelligence quotient differs by as much as thirty points. Doubtless, if a longer period of forgetting were used, the differences between these extreme groups of intelligence would be greater than when the summer vacation is used as the period of forgetting.

The second difference between the studies is that Mr. Dix has used merely median scores of the group as a determiner of the retention or the forgetting of pupils. Had he calculated the coefficient of correlation between intelligence and forgetting, he would have obtained a more scientific picture of the situation, and I believe he would have reached the same conclusion as I have set forth in the second of my conclusions.

Apparently, there is much unexplored ground in this field of summer-time forgetting.

WHO'S WHO IN THIS ISSUE

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EFFECTS OF THE DEPRESSION ON TEXTBOOKS PROVIDED IN THE SCHOOLS

A. H. NELSON

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The effects of the depression on the provision of textbooks in the schools may be discussed from several points of view. That of the publisher, were he interested solely in the volume of his business, could be covered in a single sentence. His business has been reduced approximately 35 per cent. No publisher worthy of the name, however, considers his business from this viewpoint only. The business is concerned, necessarily, with what in the terms of trade is known as the "long haul." It is perhaps wise for the benefit of those who are not connected with publishing to discuss how that term applies to the task of supplying books to the schools.

All business naturally divides itself into two classes. One class includes those industries in which the initial investment in an article to be presented to the public is not greatly different from the cost of that article when it is produced in quantity for sale. An example might be a model dress. A dress manufacturer has fifty salesmen on the road. He must put a sample of his model in the hands of each salesman. He manufactures originally fifty dresses at a unit cost not greatly different from the cost when quantity production is under way. His salesmen visit the trade and take the orders, and the quantity needed is manufactured and delivered. The second type of business is exemplified by the manufacturer who, before he can offer an article to the public, must undertake large expense for things that will be valueless unless the article finds favor and so may be produced in quantity. An especially good example of this type of industry is the company which undertakes to market new inventions. To that company comes the inventor with the idea for a new machine which will perhaps perform some operation better and at less cost than the machines available. Such a company, if it is to undertake

the project, must have on its staff experts who will study the inventor's ideas. Outside experts may well be necessary before a decision can be reached. Then drawings must be made, dies must be cut, and other expensive operations must be undertaken. Eventually a few machines can be turned out for public offering. Will the machines operate as the inventor has predicted? Will they produce a better article? Will they be less expensive to operate? If so, the market exists and the sales are made. If not, the total investment is lost. All those beautiful plans, all those perfect dies, are just so much valueless junk.

The example used to typify the second class of business is so close in plan of operation to the textbook business as to be startling. Publishers are continually struck with wonder when school officials and the public generally inquire why books cannot be supplied to the schools at the cost of paper, printing, and binding. Because to publishers, who live with the problem, it is so evident that paper, printing, and binding are only minor costs, they feel that the situation should be equally evident to all. They know that educational progress would be seriously hampered were their prices to be forced down to the cost of paper, printing, and binding. They know that this part of the business is not publishing at all. They know that under such a plan the manufacturer and the jobber would be necessary, but not the publisher. They know that under such a plan the books used today would be the books used by our grandparents.

It is exactly on this account that the effect which the depression has had on textbook sales becomes important. The publishers' friends in the schools of the country might be sorry, on personal grounds, to see our volume of business reduced, but their obligations would demand that they reduce it if such reduction did not reflect to the disadvantage of the schools.

This spread between the net price and the cost of paper, printing, and binding constitutes the publisher's lifeblood. It enables him to render his service. What is the service that he renders? To many, discussion of that point may seem unnecessary, but this service is so important a factor that it is perhaps best to go over familiar ground. The only contact that the vast majority of school people have with the publisher is their contact with the salesman. To such persons the

publisher is one who employs salesmen to sell books which authors have written and which the publisher has manufactured. They do not know of the major efforts and expenses that the publisher must meet before his product is ready to be put into the salesman's hands.

The publisher invites and receives many manuscripts. He must employ persons competent to read and judge of the merits of such manuscripts. These preliminary readings take time and cost money, but they are necessary before decisions can be arrived at. They are a necessary part of the business expense even though the great majority of the manuscripts read are judged to be unworthy of publication. Many times it is necessary to add to this office cost the expense of expert advisers outside the regular salaried staff. Each book finally published must absorb the cost of the preliminary reading of several manuscripts.

Were this expense the only cost to be considered, the burden would be relatively light. After the manuscript has been accepted and the publishing contract has been drawn, the real expense begins. Then enter those most severe of all critics—the editors in a publishing company. They know that their reputations with their own house depend on the character of the books which they produce. They spend weeks of their time on each book, making corrections in English, in statement of fact, in organization, and in teaching equipment. Many times these changes are so extensive in amount and character that the manuscript must go back to the author for revision and correction. With all that work out of the way comes the question of type page, format, and other mechanical details, which must be so decided that the book may serve its purpose to the highest possible degree. Expert illustrators take a hand, normally at the expense of the publisher. Finally a sample edition must be manufactured and sent to the school men, who are the ultimate judges. Like the invention previously mentioned, the book can then be expected to sell in quantity and return to the publisher the money invested and a fair margin of profit only if it will do the work better than existing books. If not, the initial investment is lost. With the greatest care which the publisher can exercise, the proportion of failures is appalling.

It is important to bear in mind that the publisher undertakes this

expense only because he is forced to do so. He knows that a book hurriedly prepared and rushed through carelessly will inevitably join the legion of books which sold in too small quantities to return the initial investment. He may be absolutely cold-blooded; he may have no iota of pride in his product or interest in the education of children; but, if he hopes to remain in business, he will spend all the money necessary to pay for the careful work described. The point is, of course, that school men demand—properly so—that schoolbooks be of the highest quality. They feel to the point of knowing that Charters was right when he said:

The Big Three of the educational world are the child, the teacher, and the book. The child is constantly building conduct patterns, solving problems, feeling emotions, living a fertile life. In the child's adventures the teacher serves as counselor and guide, teaching him to avoid wasteful effort and follow fruitful methods. To discover the distilled advice and experience of generations of thoughtful ancestors, the teacher and the child both need the book—a handy storehouse of established patterns to be used as occasions may require.¹

The depression did affect the sales of schoolbooks adversely. It did reduce them more than 35 per cent. This fact could mean but one thing—a reduced income for the publishers. The publishing industry, being a highly competitive industry with no enormous fortunes to back it up, must of necessity trim sails. The reduction in income meant salary cuts which in general were greater than those school men suffered. It meant cuts wherever cuts could be made, and, unfortunately, the place where most effective cuts could be made was exactly at the point where the industry was hurt the most in its endeavor to serve the people, namely, in the money available for the publication of new books. True it is that many new books have been published, but in great degree these have been books which the publishers were forced to publish on account of commitments made before the depression. Relatively few new projects could be undertaken, and with the changing curriculums the need is greater than ever before. The effect has been almost tragic.

It is interesting to note that this depression is the first which has adversely affected the textbook business. In all previous depressions the consequent increase in school attendance meant an increase rather than a decrease in the sale of schoolbooks. There has been the

¹ W. W. Charters, "Books," *Educational Research Bulletin*, XII (April 12, 1933), 129.

expected increase in enrolments during this depression but a largely decreased textbook business. Why? The answer is not hard to find. In previous depressions schoolbooks were purchased largely by the parents. Parents considered books a first necessity and, whatever the sacrifice might be, in some way provided them. Therefore, increased enrolments meant increased business for schoolbook publishers. Between the time of the last major depression and the present disturbance, a new factor entered the picture—the free textbook. When the pinch came with the present depression, harassed boards of education and superintendents of schools felt forced to make cuts in expenses. Cuts in salaries brought strenuous objection from organized groups, frequently backed up by local lay people who objected to such a program because their friends and their businesses were harmed by it. Cuts, therefore, must be made elsewhere and in quarters where objection could not be voiced. Books and supplies seemed about the only things which fell in that category. Studies show how ruthlessly those budgets were reduced. It has come about, then, that in free-textbook times a depression has meant markedly less expenditure for books even with largely increased enrolments.

Let me say here that in my opinion this situation is largely the fault of the publishing industry. Despite all the cries of politicians concerning the nefarious practices of the "book trust," there is probably no other industry so lacking in any form of co-operation. Among publishers it is a case of every man for himself. That is as it should be so far as product and price are concerned; but, when the policy is carried to such lengths as it is today, when we have no organization at all, not even one to promote a more general knowledge of the contribution that publishers make to the education of the child, the situation becomes absurd. Publishers seem to take it for granted that everyone will recognize their contribution, will accept the principle that a plenteous supply of books is an educational necessity. The results of this depression should be enough to convince us of the absurdity of such a position. As F. J. Lowth, of the Rock County Teachers Training School, at Janesville, Wisconsin, has put it:

When one finds a teacher using a history text copyrighted fifteen to twenty years ago (not so unusual a case), or a civics book in which United States senators are said to be elected by state legislatures, it is surely time for a change.

For a number of years after any constitutional amendment, teachers may be found anywhere using old books which give incorrect information. This ought not to be. In physiology, in arithmetic, and other subjects a textbook more than a few years old needs to be replaced by something new. . . . Necessary books—textbooks and reference books—fall into the category of bread-and-butter necessities. They are most decidedly not luxuries or superfluities. Necessary books are the chief stock in trade of the school. *We must have books.*¹

Many other leaders in education are making similar statements. The point is that publishers as a group have been at fault in allowing this indifference toward books to grow up. We knew three years ago that in the face of increased enrolments our sales were decreasing. We knew that an adequate number of books had never been supplied. We knew that in thousands of schools, before the depression set in, books which were out of date and almost useless as educational tools were being used. We knew, therefore, that a bad condition was rapidly becoming infinitely worse.

Did we as an industry set to work to correct that condition? We did not. We had no organization, and we continued doing as we always had done: we continued representing ourselves individually as the perfect publishers and our competitors as little better than horse thieves. We even did that more intensively than ever before. The results have been those that might have been expected. As never before, we are accused of robbing the people. State after state threatens to print its own books. Politicians, either through ignorance or design, shout from the housetops that books which cost twenty-five cents to print and bind are sold by the publisher-robbers at fifty cents. We publishers know that even in good times we are lucky if, after paying all the expenses involved, we have a five-cent profit on a fifty-cent book. We know that in bad times the most careful attention to details is necessary to enable us to break even. Do we make the facts known? We do not. We seem to like the position of robber baron. We are speechless even when a legislator in Georgia offers a bill providing for a rental system and proclaims that it will save the people of that sovereign state more than three million dollars a year. We know that the total expenditure for schoolbooks in that state is less than one million dollars a year—much less—but,

¹ F. J. Lowth, "Is the Reference Book a Luxury?" *School Executives Magazine*, LIV (January, 1935), 151.

having no organization, we are ineffective. Perhaps one of the results of the depression will be an effective publishers' organization that will keep the public advised of the true state of affairs.

Wherein is this discussion of interest to the school man? He should know whether books are of consequence. He does know. He knows that he makes no expenditure which contributes as much, for each dollar expended, to the education of the children as does the amount expended for books. Why then does he need anything from publishers other than the offering of a plethora of good books? Ideally he should not. The situation, though, is exactly the same as that in our economic world generally. Engineers and economists have shown us that, if each of us worked a reasonable number of hours a day making and distributing goods, we should have everything in profusion. No one has yet shown us how that situation can be brought about. We are human beings, and, before we can be made to do a thing, the desire for it must be planted in our minds. That is why the retail store must display attractively the wares it offers. That is why the retail store must add a considerable profit—often double the amount it pays—in fixing the retail price. The school man has thousands of calls for the few dollars at his disposal. People demand new buildings, demand swimming pools, demand elaborate decorations for entrance halls, demand the latest in seating equipment, demand radios, demand everything necessary to keep up with the Joneses in the next city. The school man, facing all these demands and facing a limited budget too, is not to be blamed if he needs help to get the essential things, and, as Mr. Lowth says, "We must have books." Publishers must join in educating the public to demand for their children, before they demand the less essential things, the best there is in books and plenty of them. Then the school man, in times of depression and consequent increased enrolments, will have the backing necessary to enable him to buy more, not fewer, books. Publishers will then be in a position to serve the schools as they should in depression times. It must be remembered that depression times are times of rapid changes of opinion. New things are desired. New things in the way of books can be had only if publishers are kept in a position financially where they can dare to experiment even though the majority of their experiments must

necessarily fail and therefore produce losses, not profits, in the balance sheet.

School men are not wholly free of responsibility. They have undertaken the job of educating the children. They should not have allowed budgets for books to be slashed to the extent that they have been. They should have pointed out that eliminating altogether the purchase of books would save less than two dollars out of every one hundred dollars spent. They should have shown how unfair it was to ask teachers to accept increased pupil loads without the better tools to work with. They should have explained that an increase of 10 per cent in pupil load saved enough to buy more than four times the number of books bought in normal times. They should have demonstrated how a teacher, equipped with modern up-to-date books and assisted by the workbooks, the study helps, and the tests which are today available, could handle increased pupil load with as good results educationally as those formerly obtained, perhaps even better. They did not generally follow this procedure, and the results are seen in radically lowered standards and in general discontent with the schools on the part of the public. Gates puts it:

A greater and more effective use of schoolbooks and printed materials designed to aid or wholly to enable the pupil to learn by himself what must otherwise be laboriously and expensively taught orally, has been advocated by experts in learning for a quarter-century. During recent years, such materials have been vastly improved in usefulness and reduced in costs. They represent an equipment which schools should provide abundantly in the most prosperous times even if the more expensive oral instruction and mechanical teaching devices could be easily afforded. The liberal use of books and printed learning materials is a sound policy under any circumstances. Under the present conditions, when the need for reduction of expenditures is insistent, a marked extension in the use of books and printed learning materials, instead of being an extravagance, is the most obvious and certain means of economizing without impoverishing education.¹

School men are now awake. That fact is being shown in increased budgets here and there over the country. They realize now how serious the mistake was. They see now how much harder it is to secure increases in budgets to even the former levels than it would

¹ Arthur I. Gates, "Printed Material: Economy or Extravagance?" *Journal of the National Education Association*, XXII (April, 1933), 124.

have been to keep them there—even to increase them in proportion to the increase in enrolment. They are coming to realize that the publisher is just as essential an element in the school work as the teacher. All these signs can but mean one thing—a more understanding co-operation.

SUMMARY

Perhaps, then, the effects of the depression on the provision of textbooks in schools may be summarized as follows:

1. Owing to radically decreased purchases and increased enrolments the available supply of textbooks is inadequate, out of date, badly worn, and in need of entire replacement.
2. Publishers have learned or must learn to co-operate in educating the public to the importance of books and to their relatively low cost as educational instruments.
3. School men have learned in the bitter school of experience that curtailment in purchases of books saves little and is immediately reflected in lowered standards.
4. School men have learned that publishers cannot do the impossible, cannot co-operate in furnishing the great variety of books needed for rapidly changing curriculums unless their business can be supported sufficiently to provide the necessary funds for such experimentation.

READING INTERESTS OF Z-SECTION PUPILS

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The importance of average reading ability for successful adjustment in the intermediate grades is too obvious to require emphasis here. Equally apparent is the fact that each year many children who are below the average in intellectual ability enter these grades seriously retarded in reading. A wealth of fascinating literature is available for primary children, literature adapted to their interests and abilities. Equally rich are the offerings for average and superior readers in the intermediate grades. Good literary material that is adjusted both to the interests and to the reading abilities of slow pupils of nine to twelve years of age is much less plentiful. Suitable books must be simple but not "babyish." They must deal with experiences that appeal to older boys and girls but must be as simple in vocabulary and style as first and second readers, or even primers. Teachers of Z-section classes are almost unanimous in demanding more and better books for their pupils.

Retarded intermediate-grade pupils are now reading whatever available materials they can read without too great difficulty. The present study was undertaken to discover the types of books most widely read and best liked by these children. Lists of the books that they had recently read were secured during the school year 1933-34 from some five hundred boys and girls classified in Z-sections of Grades IV, V, and VI in seven schools. In the majority of cases the pupils had kept such lists under the supervision of the teachers. When requested to do so, they merely submitted or copied these lists and indicated the books that they liked best and those that they liked second best. The total number of entries was approximately 4,000, and 1,046 different titles were reported. From these data 100 titles were chosen according to the combined criteria of frequency of mention and frequency of selection as first or second choice.

These 100 titles, alphabetically arranged on mimeographed forms, were submitted to 400 Z-section pupils (219 boys and 181 girls) in Grades IV, V, and VI in six schools, only three of which were included in the seven schools previously used. These pupils checked the title of each book that they had read and indicated the three that they liked best. In this checking, as previously, many referred to the lists that they had kept with the help of the teachers. Probably this procedure increased the accuracy of their responses. A few pupils were apparently more interested in making a good showing than in being accurate. Several papers were discarded, at the suggestion of the teachers, because the pupils had checked books which in the opinion of the teachers they had not read. These discarded papers were not included in the four hundred which were analyzed. It is probable that some other papers included checks for books which had been read only in part, or which had been read to the child, or the photoplay form of which had been witnessed on the screen. The writer believes, however, that most of the blanks were accurately and conscientiously checked.

The number of checks and preferential selections for each book were tabulated according to the reading ages of the pupils. The total number of checks was 8,530, and the number of preferred choices was 1,104. The average number of books checked by each pupil was, consequently, 21, and the average number of pupils reading each of the 100 books was 85. Each book, on the average, was preferred by almost 13 per cent of the pupils who had read it.

The data concerning 64 of the 100 books which were most widely read and best liked are presented in Table I. This table is interpreted as follows: *Wags and Woofie* was read by 92 pupils, 51 boys and 41 girls. It was checked as one of the three best books by 27 per cent of the 92 pupils (25 per cent of the boys and 29 per cent of the girls).

The most widely read book was Bannerman's *Story of Little Black Sambo*, which had been read by 310 of the 400 pupils. Burroughs' *Tarzan of the Apes* proved to be the most popular; it was selected as one of the three best books on the list by 44 per cent of the 107 pupils who had read it. The boys proved their fondness for strenuous adventure by giving *Tarzan* a preferential rating in 48 per cent of the

TABLE I—Continued

AUTHOR	TITLE	PUBLISHER	NUMBER OF PUPILS WHO READ BOOK			PERCENTAGE OF READERS OF THE BOOK WHO PREFERRED IT			RANK OF ORDER OF DIFF-CULTY
			Boys	Girls	Total	Boys	Girls	Total	
Colodi, Carlo.....	Pinocchio	Several	67	56	123	22	20	21	63
Dearborn, Blanche J.....	Kitten-Cat	Macmillan	87	69	156	17	22	19	6
Defoe, Daniel.....	Robinson Crusoe	Several	110	59	169	41	22	34	42
Deming, Therese O.....	Indians in Winter Camp	Laidlaw	54	28	82	15	7	12	46
Deming, Therese O.....	Little Eagle: A Story of Indian Life	Laidlaw	81	44	125	14	5	10	50
Donahay, William, and Baker, Effie E.....	Teenie Weenie Land	Beckley-Cardy	31	19	50	23	5	16	1
Flack, Marjorie.....	Ask Mr. Bear	Macmillan	33	29	62	9	3	6	23
Grover, Eulalie O.....	Overall Boys	Rand McNally	82	72	154	13	14	14	39
Gruelle, John B.....	Eddie Elephant	Volland	23	11	34	4	27	12	3
Gruelle, John B.....	Funny Little Book	Volland	50	55	105	22	11	16	8
Hanthorn, Alice.....	Billy Boy on the Farm	Benj. H. Sanborn	85	70	155	8	4	6	11
Hardy, Marjorie.....	Wag and Puff	Wheeler	84	51	135	5	12	7	5
Heath, Irene S.....	Heard by a Mouse	Warne	32	5	37	19	60	24	18
Heward, Constance.....	Twins and Tabiffa	Macrae Smith	15	11	26	0	45	19	62
Hinkle, Thomas C.....	Tawny, a Dog of the Old West	Morrow	14	11	25	36	36	36	19
Hogan, Inez.....	Little Black and White Lamb	Macrae Smith	67	46	113	13	9	12	13
Huber, Miriam B.....	Cinder, the Cat	American Book	50	20	70	16	25	19	27
Huber, Miriam B.....	Skags, the Milk Horse	American Book	63	32	95	21	19	20	22
Hudspeth, C. E.....	Oregon Chief	Ginn	65	15	80	17	0	14	64
La Rue, Mabel G.....	F-U-N Book	Macmillan	49	38	87	10	5	8	7
Le Fevre, Felcité.....	The Cock, the Mouse, and the Little Red Hen	Macrae Smith	111	81	192	6	4	5	15

TABLE I—Continued

Author	Title	Publisher	Number of Pupils Who Read Book			Percentage of Readers of the Book Who Preferred It			Rank Order of Difficulty
			Boys	Girls	Total	Boys	Girls	Total	
Lindman, Maj. Jan.....	Snipp, Snapp, Snurr, and the Red Shoes	A. Whitman	32	43	75	9	12	21	55
Lofling, Hugh.....	Story of Doctor Dolittle	Stokes	58	39	97	19	21	40	61
McDonald, Etta A. (Blaisdell).....	Toy Town	Little, Brown	92	77	169	11	8	19	16
McElroy, Frances C.....	Fall of the Fairy Prince	Johnson	38	34	72	8	15	23	33
McElroy, Margaret J., and Young, J. O.....	Toby Chipmunk	American Book	50	29	79	14	10	24	48
Marshall, Henrietta E.....	Stories of William Tell and His Friends	E. P. Dutton	42	21	63	12	14	26	56
Nida, William L.....	Ab, the Caveman	A. Flanagan	46	17	63	20	0	20	51
Nida, William L.....	Tree Boys	Laidlaw	76	43	119	12	2	14	40
Olmstead, Emma G., and Grant, Emma B.....	Ned and Nan in Holland	Row, Peterson	63	54	117	3	15	18	30
Pennell, Mary E., and Cusack, Alice M.....	Old Friends and New Dutch Twins	Ginn	39	33	72	5	12	17	43
Perkins, Lucy F.....	John and Jean	Houghton Mifflin	65	68	133	6	10	16	49
Pickard, Eloise D., and Simpson, Gladys.....	A Week with Andy	American Book	42	37	79	10	5	15	4
Pitman, J. Asbury, and Dearborn, Blanche J.....	Tale of Peter Rabbit	Ginn	46	37	83	9	11	20	45
Potter, Beatrix.....	Grandfather's Farm	Warne	103	75	178	6	3	9	35
Read, Helen S.....	Johnny and Jenny Rabbit	Scribner	60	40	100	8	0	8	20
Seri, Emma.....	Work-a-Day Doings on the Farm	American Book	78	64	142	12	12	24	20
Seri, Emma.....	Black Beauty	Silver, Burdett	55	40	95	5	10	15	60
Sewell, Anna.....	Several	Several	72	47	119	25	36	61	59

TABLE I—Continued

AUTHOR	TITLE	PUBLISHER	NUMBER OF PUPILS WHO READ BOOK		PERCENTAGE OF READERS OF THE BOOK WHO PREFERRED IT		RANK ORDER OF DIF- FI- CULTY
			Boys	Girls	Boys	Girls	
Sherman, James W.....	Out in the Kitchen....	Little, Brown	37	20	57	5	14
Skinner, Eleanor L.....	Tales and Plays of Robin Hood	American Book	72	43	115	11	7
Smith, Laura R.....	Seventeen Little Bears	Whitman	51	43	94	8	10
Smith, Laura R.....	Three Little Cottontails	Whitman	54	41	95	2	17
Smythe, Emma Louise (editor)....	Reynard the Fox	American Book	86	56	142	14	5
Walker, Alberta, and Summy, Ethel	We Three	Charles E. Merrill	32	19	51	16	11
Walker, Hattie A.....	Shining Star, the Indian Boy	Beckley-Cardy	84	46	130	14	4
Webb, B. Ethel.....	Cinderella and Other Favorite Fairy Tales	Winston	85	85	170	11	29
Withers, John W., Skinner, Charles E., and Geds, Mathilde C.....	Playfellows	Johnson	28	19	47	11	16
							13

cases against the girls' 33 per cent. Among the books widely read, second choice went to Defoe's *Robinson Crusoe*, with 34 per cent preference among 169 pupils. The boys, again, were the more enthusiastic about Defoe's classic, 41 per cent of the boys giving it preference compared with 22 per cent of the girls. Hinkle's *Tawny* received a slightly higher preference than *Robinson Crusoe*, 36 per cent, but *Tawny* had been read by only 25 pupils.

Strong sex preferences for certain books were revealed. Boys indicated great interest in the following books, which were relatively uninteresting to the girls: Donahey and Baker's *Tecnic Weenie Land*, Hudspeth's *Oregon Chief*, and Nida's *Ab, the Caveman*. Girls were much more interested in Bigham's *Merry Animal Tales*, Brandeis' *Little Anne of Canada*, Smith's *Three Little Cottontails*, and Webb's *Cinderella*.

The last column of Table I requires explanation. Reading ages were secured for the four hundred pupils, and a tabulation of data was made to show the number of pupils of each reading age who reported having read each book. Since some books had been read earlier than the date of reporting, many of the books were read by a part of the pupils at an earlier reading age than that reported. Significant differences in the reading difficulty of the various books seemed to be revealed by the data when the cumulative percentage of pupils reporting each book at each reading age was calculated. Pupils with reading ages of eight years or less accounted for 14 per cent of the readers of Bannerman's *Little Black Sambo*, Baker's *Pet Pony*, Huber's *Skags, the Milk Horse*, Serl's *Johnny and Jenny Rabbit*, and Smith's *Seventeen Little Bears*. Pupils of the same limited degree of reading ability made up only 4 per cent of those checking Collodi's *Pinocchio*, Sewell's *Black Beauty*, Webb's *Cinderella*, and Carroll's *Alice's Adventures in Wonderland*. Similar differences appear for reading ages of eight to nine, nine to ten, and ten to eleven. From the table showing the cumulative percentages of pupils of each reading age reporting each book, three values were selected, namely, the percentage of pupils with reading ages of eight or less, the percentage with reading ages of nine or less, and the percentage with reading ages of nine years and five months or less. These three percentages for each book were added together, and values ranging

from 120 to 29 were secured. The books having the largest proportion of readers from these lower reading-age groups would seem to be the most simple; those having the smallest percentage, the most difficult. The sixty-four books reported were arranged in rank order from easiest to most difficult on this basis. These rankings are reported in the last column of the table.

It would be interesting to analyze many, if not all, of the sixty-four books listed for the purpose of determining the exact level of difficulty and the characteristics which make them attractive to children. Some evidence will be presented with regard to two widely read books.

Little Black Sambo contains only 228 different words and is a small book totaling only 64 sentences and 1,078 running words. Its difficulty is clearly that of a primer, and it is widely read and enjoyed by first-grade pupils. All the characteristics determined by Gates¹ to be most attractive to primary children are found in pleasing combination in Helen Bannerman's little classic. Suitability—a story within the range of child experience without being either too humdrum or too remote—is there. Liveliness or action is a pronounced characteristic of the story. It is almost one-half conversation, twenty-eight of the sixty-four sentences being in direct discourse. Although the book is short and simple, a plot runs through the entire story. That animals play a prominent rôle is evident to anyone familiar with the story of Sambo and the tigers.

In contrast to *Little Black Sambo*, *Alice's Adventures in Wonderland* is a long and difficult book for retarded readers. From a story of 64 sentences to one of 162 pages is a wide range. The sentences in Lewis Carroll's masterpiece are more involved and the ideas more subtle. The book was written in another country and in another age, and many of the occurrences are outside the experience of modern children, especially children of low mentality. The story is somewhat lacking in plot but abounds in action and conversation. Animals play a prominent part in the story, and surprise is one of its most striking characteristics. These qualities are undoubtedly responsible for its appeal to children. The moving-picture version

¹ Arthur I. Gates, *Interest and Ability in Reading*, pp. 70-93. New York: Macmillan Co., 1930.

of the story was available at the time the pupils reported their reading and probably led to increased interest and more adequate understanding of the book. It is probable, however, that the retarded children who read the book missed much that would be enjoyed by more able readers.

One would expect that few children would select both *Sambo* and *Alice* as favorite books. A child who could read *Alice* well enough to list it as one of his three favorites would feel considerably superior to *Sambo*. Such proved to be the case. Of 310 pupils reading *Sambo*, 64 checked it as a favorite, and 49 out of 156 children gave a preferential rating to *Alice*. One hundred and thirty-four pupils had read both books, but only three pupils selected both as a "best" book.

The present study does not include all books that might be read and enjoyed by retarded pupils. It includes some evidence of the reading difficulty and interest appeal of sixty-four books selected from an original list of more than a thousand reported by intermediate-grade pupils in Z-section classes.

TO CHECK OR NOT TO CHECK?

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Educational literature in recent years has included much discussion about 100 per cent accuracy in the operation of the fundamental processes. One of the means suggested for reaching and maintaining this standard is the use of checking. Different types of checks are proposed for the various processes. The value of checking to obtain accuracy is well expressed by Young: "Whenever it is possible, the work should be checked in some way. This is usually possible; if not, a second working, independent of the first, is at least always possible. It may be said, 'Train the child to absolute correctness the *first* time.'"¹ Stone believes that all work should be checked.²

The present study is concerned with checking long division, when the divisor is a one-figure number, by use of the multiplication process. Such an example is checked by multiplying the quotient by the divisor and adding the remainder, if there is a remainder, to the product. Checking division by multiplication has been considered one of the best checks to be applied. Various authors have advocated checking division by multiplication. The view expressed by Morton may be considered typical of the thought concerning the multiplication check for division: "Every division example solved should be checked. From the time of his introduction to the subject, the pupil should learn to apply the important principle that *divisor times quotient plus remainder equals dividend*."³

¹ J. W. A. Young, *The Teaching of Mathematics in the Elementary and the Secondary School*, p. 250. New York: Longmans, Green & Co., 1924.

² John C. Stone, *How To Teach Primary Number*, p. 152. Chicago: Benj. H. Sanborn & Co., 1922.

³ Robert Lee Morton, *Teaching Arithmetic in the Primary Grades*, p. 187. Newark, New Jersey: Silver, Burdett & Co., 1927.

An "error" is defined in this study as any procedure that gives an incorrect result. Multiplying the quotient by the divisor and adding the remainder will reveal every type of error in division except one. This exception is an error of estimation which results in a final remainder equal to, or greater than, the divisor. The example illustrated at the left is incorrect although the product of the divisor and the quotient plus the remainder will equal the dividend.

$$\begin{array}{r} 18 \text{ (+6, remainder)} \\ 4 \overline{)78} \\ \underline{4} \\ 38 \\ \underline{32} \\ 6 \end{array}$$

During the autumn semester of the school year 1934-35 the writer supervised the teaching of long division with a one-figure divisor in two school centers. A group of about 450 pupils in Grade IV was used in this study. Mimeographed practice exercises were furnished weekly to the fourteen teachers of these pupils. When each practice exercise was completed, the examples were corrected and were then returned to the pupil. Each example in every practice exercise was checked by the multiplication process from the beginning of the study until the final test was given.

Each error in an incorrect example was pointed out to the pupil, and he was required to correct the example. Errors both in the solution and in the check of the example were identified. An error in a check consisted in an incorrect procedure or in an error in a number combination. An example was said to check when the product of the divisor and the quotient plus the remainder equaled the dividend. This plan of teaching was continued until the latter part of January, 1935, when the final test was given to measure the pupils' ability in division with a one-figure divisor.

An analysis of the papers soon showed that checking division by the multiplication process is of no value for pupils in Grade IV who are learning the division process. The results of checking division by the multiplication process in the case of 404 pupils are given in Table I. Although approximately 450 pupils were used in this study, the complete records for all the practice exercises and the final test could be obtained for only 404 pupils. The table shows that checking was ineffective in producing accuracy in division among these fourth-grade children. In a careful examination of all papers the writer did not find a single case in which a pupil changed the

example because the check showed the division to be incorrect. On the other hand, there were many cases in which the check was changed in order that it would agree with the dividend. The computation of the check was correct, but, since it did not equal the dividend, because of an error in the division process, the final value

TABLE I
ERRORS MADE IN PRACTICE EXERCISES AND IN FINAL TEST BY
404 FOURTH-GRADE PUPILS IN CHECKING LONG DIVISION
WITH A ONE-FIGURE DIVISOR

Error	Frequency in Practice Exercises	Frequency in Final Test
1. Multiplied quotient by divisor, forcing a check.....	769	327
2. Did not find error when check did not equal dividend.....	486	138
3. Multiplication error in check same as multiplication error in division.....	372	151
4. Added remainder incorrectly (error in number combination)	107	41
5. Did not check example.....	78	9
6. Added wrong carry number in multiplication.....	53	58
7. Did not add remainder to product.....	48	16
8. Multiplied incorrectly (error in number combination).....	35	15
9. Multiplied dividend by divisor.....	35	0
10. Did not add remainder to the units' figure of the product..	29	6
11. Added remainder, carrying when not necessary.....	24	14
12. Added remainder, carrying more than 1.....	18	8
13. Added remainder, not carrying when necessary.....	18	7
14. Added remainder different from remainder in example....	12	8
15. Used quotient different from that in example.....	12	0
16. Did not carry when necessary in multiplication.....	10	7
17. Subtracted instead of adding remainder.....	9	2
18. Multiplied quotient by number different from divisor.....	5	0

in the check was made to equal the dividend. The only means for determining that the values had been changed was to note whether figures had been erased and new figures substituted.

The greatest number of errors in checking resulted from forcing the check. This same error was also prevalent in the final test. The test was the same as that used in another study by the writer.¹

To determine whether the check was consciously forced on the part of the pupil or whether it was caused by a faulty knowledge of the multiplication process, a test on the multiplication examples in which the check was forced was given to the pupils in seven of the

¹ Foster E. Grossnickle, "An Experiment with a One-Figure Divisor in Short and Long Division," *Elementary School Journal*, XXXIV (March, 1934), 501.

fourteen classes used in the study. The sampling was done at random, alternate teachers being used in each center. Of 215 pupils, 184 pupils, or 86 per cent of the group, forced the check. When the same examples were multiplied in a separate test, 80 per cent were correct and not one of the incorrect responses was the same as that given for the check. These data point to the conclusion that checking division by multiplication is of little value when the process of long division is being learned.

The second source of error in checking resulted from lack of agreement between the check and the dividend. The illustration at the left shows how an error of this type operated. If the pupil noted that the check did not agree with the dividend, he failed to correct the division example. Because this type of procedure was extremely prevalent, it is clear that checking is most perfunctory.

Most of the items in Table I are thoroughly descriptive of the errors, but Item 10 may need clarifying. The illustration at the left shows how the pupils failed to add the remainder to the units' figure of the product of divisor and quotient. The example need not necessarily be one in which zero is final in the quotient only. Often the remainder was added to the tens' figure of the product.

The reader may wonder whether the checking process was well taught. As previously stated, all practice material and teaching procedures were supplied by the writer. All errors were pointed out, and corrections were made by the pupils. The errors of checking were cited exactly as were the errors in the division process. That the pupils learned to divide very well is shown by the mean score on the final test. This test contains easy and difficult examples and various zero types. In this study the mean number of errors on the test for the total group was 7.2 ± 0.37 . In a previous investigation in which the same test was used, no group below the level of Grade VIII made as favorable a score.¹ In another study in which the test was used, 13.5 per cent of the errors were due to the appear-

¹ *Ibid.*, p. 504.

ance of zero.¹ In the present study only 1.8 per cent of the errors were due to faulty use of zero. Furthermore, in the former study 9.5 per cent of the errors were caused by faulty procedures, while in this investigation only 4.0 per cent of the errors were caused by faulty procedures. These data would seem to indicate that the teaching procedures used in this study were effective.

One of the factors which make it difficult for the pupil to detect an error in division when checking by the multiplication process is his mind-set at the time of the operation. For example, in the illustration at the left an error was made in subtracting 7 from 13. When checking the example, the pupil probably knew the correct multiplication product, but, when he saw that the product of $9 \times 3 + 5$ was 32 instead of 33, he carried 6 instead of 5 to make the example check *in toto*. It is almost certain that the same example would have been multiplied correctly if the process had been isolated from the division example.

The writer believes that checking of division is of distinct value after the need and the value of a check can be appreciated. The social value and philosophic interpretation of checking cannot be grasped in the lower grades, or at least in Grade IV. The data in this investigation point unerringly to the conclusion that in Grade IV checking does not result in accuracy in long division. The pedagogical implications of these findings are important. Since almost as much time is required to check an example as to work the example itself, a distinct economy of time would result if the division process were taught without reference to checking. Later, after the algorism is well known, the check and its significance can be taught.

The reader is cautioned not to generalize about the value of checking in the other three processes. Reasoning by analogy would suggest that checking in all processes is equally valueless. Checking may or may not be of value in the other processes, but no opinion should be formed about its relative worth because of this study. This investigation has shown only that checking in long division with a one-figure divisor is of no value for obtaining or maintaining 100 per cent accuracy when the process is taught in Grade IV.

¹ From data to appear in an autumn issue of the *Journal of Educational Research*.

AN EXPERIMENT WITH THREE WAYS OF TEACHING WATER-COLOR PAINTING

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To those readers who consider it a bit sacrilegious to apply any kind of scientific methods to the field of art, the writers would stress the point that this study is a study of *methods of teaching art* and is, therefore, outside the halo that usually surrounds pure art.

Three approaches to water-color work are fairly common: (1) preliminary detailed pencil drawing, (2) preliminary chalk sketching, and (3) free painting. Advocates of the pencil-drawing approach claim that it enables the child first to achieve harmony of line and form and then leaves him free to concentrate on color harmony and distribution of tone values. They also believe that this method capitalizes on the child's previous familiarity with the pencil as a drawing instrument. The advocates of the chalk-sketching approach believe that it allows more freedom in the application of the water color, which is not suitable for detailed drawing. Thus, the rough outline is sketched in with chalk, and the details are left to be done in water color, whereas having to paint within the limits of definite pencil lines with a water-color brush is difficult. The third approach, free painting, is supposed to produce a desirable freshness and freedom from restraint and to be more suitable for genuine artistic self-expression.

When an attempt is made to decide which of these three approaches is best, two questions need to be answered: (1) Which will result in better products in the early stages of the learning? (2) Which will result in the best long-run achievement? Unfortunately, this study had to be confined to the first of these questions.

An equivalent-group experiment was used to evaluate the three approaches. Three groups of thirty pupils each were involved. All

were seventh-grade pupils, and the three groups were closely similar in age, intelligence, and previous art training. In order that chance factors of individuality and personality might be eliminated, there was introduced a special trick of rotating the art subjects that were assigned to the three groups. Thus, each group was divided into three subgroups, and different art subjects were assigned to each subgroup, while all in the group used the same method of approach. For example, Group I used the pencil-drawing approach, but the subgroups of Group I were divided according to subject. Group I A drew all-over patterns, or abstract designs; Group I B drew pictures of birds; and Group I C did Indian heads. Group II used the chalk-sketching approach but was so subdivided that Group II A drew all-over patterns, Group II B bird pictures, and Group II C Indian heads. Group III, similarly divided into subgroups doing the same three art subjects, used the free-painting approach. It is believed that broadening the base of the experiment to include three art subjects under each method of approach gave much more dependable results.

When the merits of the three methods were measured, the thirty all-over patterns were given code numbers and were shuffled into miscellaneous order for rating by the judges. In order that possible prejudice might be avoided, the judges were not told the nature of the experiment. Each judge was simply asked to sort the thirty pictures into three piles (best, medium, and poorest) according to artistic merit. Twenty judges made independent judgments of this type. Then they made similar judgments of the bird pictures and, finally, of the Indian heads. Thus, all judgments were independent evaluations rendered on a comparable basis and were as free from prejudice as could be arranged.

The total merit of a given child's picture was then determined by summarizing the ratings of the twenty judges transformed into numerical ratings (3=best, 2=medium, 1=poorest). Thus, six judges might give the picture the best rating, or eighteen points; ten judges, middle rating, or twenty points; and the remaining four judges, lowest rating, or four points. The picture would thus receive a total of forty-two points. The maximum rating would be sixty points, which would be awarded when all twenty judges gave a pic-

ture the best rating. Actually, no picture received more than fifty-three points.

A summary of the merit of a given method of approach (for example, pencil drawing) was secured by tabulating the ratings for the thirty pictures produced by that method—the ten all-over patterns, the ten bird pictures, and the ten Indian heads. This tabula-

TABLE I
DISTRIBUTION OF WATER-COLOR PICTURES DONE BY THREE
METHODS ACCORDING TO RATINGS ON ARTISTIC
MERIT MADE BY TWENTY JUDGES

JUDGES' RATING	NUMBER OF PICTURES DONE BY—		
	Pencil- drawing Method	Chalk- sketching Method	Free- painting Method
51-53	3	2	1
48-50	6	3	0
45-47	4	3	6
42-44	6	4	9
39-41	5	7	3
36-38	4	3	7
33-35	0	6	2
30-32	1	2	2
27-29	1	0	0
Total	30	30	30
Mean rating	43.30	40.60	40.80
Standard deviation	5.92	5.97	4.80
Standard error of mean	1.08	1.09	0.80

tion was then compared with similar tabulations of results for the pictures produced by the chalk-sketching and the free-painting approaches.

The statistical results of the study are summarized in Tables I and II. The main conclusion is that the pencil-drawing method receives the highest mean rating and that the means of the chalk-sketching and the free-painting methods are practically equal. The difference between the pencil-drawing method and either of the other methods is not large and is somewhat less than twice as large as the standard error of the difference. Since statisticians generally expect a difference to be about three times its standard error before they interpret it as "practical certainty," the most that can be said

here is that there is a probability that the pencil-drawing method is the best of the three. Stated numerically, the chances are 25 to 1 and 26 to 1, respectively, that the chalk-sketching and the free-painting methods would continue to fall below the pencil-drawing method if the experiment were repeated under similar conditions with an infinite number of pupils.

TABLE II

STATISTICAL COMPARISONS OF RATINGS GIVEN WATER-COLOR
PICTURES DONE BY THREE METHODS

Pencil-drawing method and chalk-sketching method:

Mean of pencil-drawing method.....	43.30
Mean of chalk-sketching method.....	40.60
Difference favoring pencil-drawing method.....	2.70
Standard error of difference.....	1.53
Ratio of difference to standard error.....	1.76
Chances that difference is real.....	25:1

Pencil-drawing method and free-painting method:

Mean of pencil-drawing method.....	43.30
Mean of free-painting method.....	40.80
Difference favoring pencil-drawing method.....	2.50
Standard error of difference.....	1.40
Ratio of difference to standard error.....	1.79
Chances that difference is real.....	26:1

Chalk-sketching method and free-painting method:

Mean of chalk-sketching method.....	40.60
Mean of free-painting method.....	40.80
Difference favoring free-painting method.....	0.20
Standard error of difference.....	1.41
Ratio of difference to standard error.....	0.14
Chances that difference is real.....	1.3:1

The following brief statements summarize the conclusions of this study. (1) The pencil-drawing method is probably superior to the chalk-sketching and the free-painting methods. (2) This probability is expressed by chances of 25 to 1 and 26 to 1, respectively. (3) The chalk-sketching and the free-painting methods yield almost equal results. (4) These findings need to be checked by further experimentation to determine whether the pencil-drawing method is a blind-alley method that might fail to give as good results in the advanced stages of art-study.

EVALUATION OF SPELLING TEXTBOOKS

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The purpose of this article is to present a brief account of the California State Curriculum Commission's recent evaluation of spelling textbooks for the elementary grades. Briefly described, the plan of procedure involved four major steps: (1) the development of a set of criteria by which the books might be judged; (2) the formulation of a score card based on the assignment of numerical values to the items of the criteria; (3) the completion of a series of studies, primarily objective in character, designed to secure data with respect to the relative merits of the books on all items of the criteria; and (4) the interpretation and utilization of these data in rating the books on the score card.¹

THE CRITERIA

The following criteria were formulated and used by the State Curriculum Commission in the evaluation of spelling textbooks.

- | | Weighting |
|---|-----------|
| 1. The findings of research on frequency of usage in the writing of children and adults should be utilized in the selection of the words included in the speller. | 200 |
| 2. The words should be graded in accordance with evidence revealed by studies on spelling difficulty and frequency of usage in the several grades. | 125 |
| 3. The grouping of words into lessons should be based on available evidence with respect to common spelling difficulties, common structure, meaning relationships, and homonyms | 100 |

¹ A more detailed account of the concrete application of these procedures is contained in *Evaluation of Arithmetic Textbooks*. Department of Education Bulletin, No. 19. Sacramento, California: State Department of Education, 1932. See also Ivan R. Waterman and Irving R. Melbo, "Selection of Sixth-Grade Reading Textbooks for California Adoption," *California Journal of Elementary Education*, III (February, 1935), 133-41; and Ivan R. Waterman and Irving R. Melbo, "A Plan of Procedure for the Evaluation of Textbooks in Reading," *Elementary School Journal*, XXXV (May, 1935), 662-74.

	Weighting
4. Provisions for review should be made in accordance with established psychological principles.	100
5. The book should be designed to develop in the pupil an appreciation of the social value of correct spelling, a recognition of his individual spelling needs, and the assumption of a responsibility for correct spelling at all times.	100
6. The book should provide a well-motivated plan for effectively teaching pupils proper methods of studying spelling: (a) devices for motivation, (b) general study methods, (c) provisions for meeting individual differences	100
7. Appropriate exercises designed to assist the pupil in studying word meaning and related language work should be included	75
8. The format of the book should conform to a high standard. .	50
9. Suggestions to teachers should be provided, including a statement on (a) the place of spelling in the school curriculum and (b) comprehensive directions relating to teaching procedures. .	150
Total.	1,000

COMPARATIVE STUDIES

Comparative studies were made to determine the differences among seventeen series of spelling textbooks submitted for state adoption. These studies were made by the Division of Textbooks and Publications of the State Department of Education to serve as a basis for the subsequent evaluation of the books by the Curriculum Commission. While it is obviously impossible to present a complete report of these studies in a single article, a brief discussion of the general nature of the procedure followed and the studies which were made may be of some value to others responsible for the selection of spelling textbooks. To this end, the nature of some of these studies will be indicated and certain accompanying data will be presented in the following paragraphs.

Word lists.—In two books¹ the words were selected entirely from research studies of the words most commonly used in adult writing activities; in five books the words were selected primarily from studies of the words used in children's writing; and in eight books the words were derived from definite combinations of these two major sources. In contrast, two books presented word lists which were ap-

¹ The word "book" is used in this article to mean a single complete series of books for the elementary grades.

parently based on the authors' judgments without reference to accepted research investigations. Previous studies have indicated the differences among the word lists in the leading spellers. For example, Wise¹ found 13,641 different words in twenty spellers, 3,630 of which were common to eleven or more spellers. He concluded that the latter number approximated the number of words which a child will ordinarily need to spell for writing purposes. However, the two major sources of spelling words indicate "that the great majority of words supposedly used commonly by children in writing themes are also used commonly by adults, in so far as they are known."² In view of these facts, any word list based on either or both of the two major sources is probably generally satisfactory, and differences in merit on this point among spelling textbooks can scarcely be assigned until more complete research data are available.

It is generally accepted that the mastery of 4,000 to 5,000 words will be sufficient for ordinary purposes. The total number of different words in the books studied ranged from 2,829 to 8,565, with a median of 4,350 words. Only two books contained more than 5,000 words, and only two books contained fewer than 4,000 words. With the exception of the extremes, differences in merit can hardly be assigned on this point.

Grade placement.—The various bases of allocating words to the several grades may be resolved to two: (1) spelling difficulty and (2) frequency of children's usage at a given level. Studies have shown that spelling textbooks are almost totally dissimilar with respect to grade placement of words.³ Since there is no generally accepted "standard graded spelling word list," it seems reasonable to favor a book in which definite and careful consideration has been given to the psychological principles of teaching in a given grade those words which are most used and least difficult. Of the books studied, four attempted to assign words to the grades primarily on the basis of usage; five, mainly on the basis of spelling difficulty; and

¹ Carl T. Wise, "Selection and Gradation of Words in Spelling," *Elementary School Journal*, XXXIV (June, 1934), 754-66.

² Paul McKee, *Language in the Elementary School*, p. 58. Boston: Houghton Mifflin Co., 1934.

³ Carl T. Wise, *op. cit.*

eight books appeared to combine both usage and difficulty. Unfortunately, no data are available for determining how well the grade placement had been made.

Grouping—In an attempt to facilitate the learning process spelling words are usually grouped in lessons according to one or more of

TABLE I
PERCENTAGE DISTRIBUTION OF WORDS IN SEVENTEEN SPELLING BOOKS
ACCORDING TO BASIS OF GROUPING

Book	PERCENTAGE OF WORDS GROUPED ACCORDING TO—				
	Meaning Relationships	Common Spelling Difficulties	Common Structure	Phonetic Similarities	Unrelated
A.	77	.....	5	1	17
B.	4	.....	5	*	91
C.	98	.....	.....	.....	2
D.	40	8	18	27	7
E.	18	6	55	8	13
F.	5	.....	4	.....	91
G. ....	.....	.....	.....	.....	100
H.	78	.....	*	*	21
I.	38	.....	2	.....	60
J. ....	.....	.....	70	.....	30
K.	33	.....	.....	.....	67
L.	5	3	.....	.....	92
M.	2	.....	.....	3	95
N.	100	.....	.....	.....	.....
O. ....	.....	.....	.....	.....	100
P.	33	.....	.....	.....	67
Q.	52	2	.....	.....	46

* A fractional amount.

the following bases: (1) meaning relationships, (2) common spelling difficulties, (3) common structure, and (4) phonetic similarities. In some books, however, words are grouped in what appear to be entirely unrelated lists. Table I briefly summarizes the plans of grouping in the seventeen books investigated.

Objective evidence has failed to demonstrate any real value in grouping words, and research on the relative merits of the several bases of grouping words is inconclusive. However, since the grouping of spelling words according to meaning relationships will probably facilitate the learning process, it appears psychologically superior to

any other single method of grouping and may, in all probability, be so regarded in the evaluation of spelling textbooks. Although the majority of words should probably be grouped on this basis, some attention should also be given the important elements in difficulty, structure, and phonics. The data in Table I indicate that only four of the seventeen spelling textbooks grouped a large majority of their words according to meaning relationships. Three of these books generally followed the practice of introducing new words in a short paragraph on a given topic. Following is a typical example.

MAKING AN INDIAN DRESS¹

It took an Indian a long time to make a dress. His cloth was a piece of deer skin. The Indian cut the skin with a sharp stone. This was not easy. His needle was a piece of bone with a hole in one end. He used a thin strip of skin for thread. An Indian dress must have lasted a long time.

STORY WORDS

easy	cloth	piece	hole
dress	deer	bone	thin
sharp	thread	wanted	strip
Indian	needle	early	skin

In one book the words in each spelling unit were grouped about a central theme corresponding to some child activity or center of interest. Illustrative of this practice is the following list.

PLAYING BASEBALL²

B List			E List
bat	side	third	glove
catch	drop	lost	fielder
nine	first	short	stole
throw	second	running	times

As grouped in this book, the words were much more closely related to the central theme than those in any other book.

When spellers are being differentiated according to their respective merits, attention must be given not only to the proportion of words grouped according to meaning relationships but also to the qualitative aspects of such groupings.

¹ Jesse H. Newlon and Paul R. Hanna, *The Newlon-Hanna Speller*, Book I, Grade III, Lesson 3. Boston: Houghton Mifflin Co., 1933.

² Fred C. Ayer, E. E. Oberholtzer, and Robert H. Lane, *Golden State Speller*, Book I, p. 32. Sacramento, California: California State Printing Office, 1935.

Provisions for review.—Most spelling textbooks provide for one or more of the following types of systematic review: (1) an occasional page of review words included at intervals throughout the book; (2) a list of selected review words as a separate section of each weekly unit; (3) a few selected review words included with the new words of each weekly unit; (4) a general review of selected words at the close of each semester; (5) specific directions to pupil and teacher for review of words by pupils on a basis of individual difficulties; and (6) "informal review" in the form of games, contests, dictation exercises, and other special activities. The majority of the books studied contained provisions for several of these types of review. The most commonly found types were the first, the second, and the fourth. In most of the books an attempt was made to select the more difficult words for review purposes, and in certain books a second and a third review were provided for the most difficult words. A few books provided two reviews for all words presented. In certain cases the review provisions for the more difficult words extended over several grades.

Provisions for review in spelling should be determined by (1) the difficulty of the word, (2) the spelling ability of the learner, and (3) the completeness of the initial learning. In the final analysis these factors require a recognition of, and provisions for, meeting individual differences in the review of spelling words. When the books were rated on the provisions for review, preference was given, first, to books containing a well-developed plan for the review of words on the basis of individual differences and, second, to books with review words which were distributed among the weekly units and which had been selected and repeated on the basis of difficulty.

Development of spelling consciousness.—The development in each pupil of the desire to spell correctly at all times is generally considered to be one of the most important objectives of spelling instruction. Whether this objective can be completely or even partially obtained through the medium of a textbook or whether it can be realized only through good teaching is a matter of opinion. Nevertheless, certain textbooks have included features designed to further this purpose. The comparison of spelling textbooks on this point, however, is an extremely subjective consideration.

Provisions for teaching study methods.—All but three of the books

studied included a definite recommendation for an approved method of studying words, and in all but two of these the recommendations were directed to the pupil. These recommendations are traceable to procedures developed by Horn.¹ The books were highly uniform in recommending from five to seven steps closely following the procedure recommended by Horn. Briefly stated, these steps direct the child to—

1. Look at the word and pronounce it correctly.
2. Attempt to visualize the word, repeating it by syllable and letters.
3. Check the accuracy of Steps 1 and 2.
4. Write the word from the visual memory. Check the accuracy.
5. Fix correct spelling by repetition.

The books were found to vary primarily in the degree to which the directions were clearly stated for the pupil and in the extent to which the steps were repeated and emphasized throughout the book and for the several grades.

Provisions for meeting individual differences.—The factor of individual differences is so important in the teaching of spelling that instructional materials and methods must make adequate provision for adaptations to individual needs. This adaptation necessitates two fundamental steps: (1) location of each child's peculiar spelling difficulties and (2) provision whereby each child devotes special attention to his own difficulties. Five of the books studied made little or no provision for meeting individual differences. Eight of the books contained suggestions to teachers or pupils directing each child to list the misspelled words of each unit and to study these words together with those of new units. Two of these books were of the workbook type and provided in the books themselves means for keeping individual records of misspelled words and records of progress on these words. Another book of the workbook type was so constructed as to be virtually a device for placing spelling on a strictly individual basis.

Exercises and activities.—Most of the newly published spelling textbooks contained a wide variety of exercises and activities de-

¹ Ernest Horn, "Principles of Method in Teaching Spelling as Derived from Scientific Investigation," *Fourth Report of the Committee on Economy of Time in Education*, p. 72. Eighteenth Yearbook of the National Society for the Study of Education, Part II. Bloomington, Illinois: Public School Publishing Co., 1919.

signed to aid in the learning of words. These were classified under five major categories as exercises which required (1) syllabication of words, (2) derivation of words from given forms, (3) use of words in meaningful association, (4) practice in identifying words, and (5) phonetic exercises. The total number of exercises included in the books ranged from 0 to 1,677, with 276 as the median. In general, the greatest stress was placed on exercises seeking to emphasize the use of words in meaningful associations. Exercises requiring the syllabication of words appeared rather infrequently in most books, and exercises requiring the use of certain phonetic relationships were present only to a limited extent in seven of the seventeen books. The remaining two types of exercises mentioned in the list generally held an intermediate position, although in four books exercises on word derivation appeared with the greatest frequency.

The inclusion of a large number of exercises is no guaranty of excellence in a spelling textbook. Many of the exercises in several textbooks were found to be of extremely questionable educational value. Some of them were primarily "busy work," such as rearranging the alphabet in order. Certain kinds of exercises which placed considerable stress on the use of diacritical and accent marks, those which stressed the crossing-out of silent letters, and those which sought to insure understanding of the meanings of words by the writing of spelling words in sentences were often unsuitable. In many instances the exercises presented a reading and vocabulary difficulty beyond that of the grade level for which they were intended.

Suggestions to teachers.—All but one of the spelling textbooks submitted contained some material directed to the teacher. In general, this material was centered in three major subjects: (1) the superior features of the textbook, the excellence of its construction, and its wide applicability; (2) the place of spelling in the elementary-school program; and (3) suggestions relating to teaching procedures.

For the most part, the material attempting to describe the place of spelling in the elementary-school program was devoted to a rather involved discussion of spelling objectives. The discussions were characteristically general and vague. They succeeded nicely in evading the fundamental issues presumably under consideration. In only four books were there explicit and fairly complete and understand-

able statements relative to the place of spelling in the elementary-school curriculum.

As a whole, the material giving suggestions for teaching procedures was fairly satisfactory. Among the specific points mentioned in most of the textbooks were the following.

1. Spelling is more efficiently taught by means of a direct rather than an incidental attack.
2. The number of words to be taught in any given spelling lesson should not be large.
3. The spelling period should not exceed fifteen minutes in length.
4. Emphasis should not be placed on the teaching of rules.
5. Each lesson should require more than one study period.
6. A pronunciation exercise should be the first step in presenting the words of the lesson.
7. The emphasis should be largely on visual imagery.
8. There should be no emphasis on diacritical marking.
9. No particular attention should be called to "hard spots" in words.
10. Spelling instruction should take cognizance of individual differences.

Many of the textbooks failed to agree in their respective recommendations as to (1) the best means of presenting new words (in column or context form) and (2) the use of a preliminary test to precede the study period. While other differences in the content of the suggestions for teaching were also noted, the greatest differences among the textbooks appeared to be not in what they recommended but in the extent to which their suggestions were phrased and presented in an easy, readable, and usable manner.

CONCLUSION

The general nature of the studies mentioned in this report has been described rather than the details. Only a few data from the studies have been presented. The chief purpose of the report is to indicate the general procedures involved in the plan of evaluation. It is desired to emphasize two characteristics of the plan: (1) objective methods of study and (2) the analytical approach. The use of objective methods makes possible in many cases a direct comparison of a textbook with standards derived from research studies, and in other cases it assists in a comparison with standards based on a consensus of educational judgment. The analytical approach assures that the relative merits of books will be judged independently on the basis of the various factors under consideration.

EDUCATIONAL ATTAINMENTS OF YOUNG MALE OFFENDERS

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Lane and Witty¹ have described in some detail the educational attainment of delinquent boys under sixteen years of age incarcerated in the School for Boys at St. Charles, Illinois. It is the purpose of the present article to describe the educational attainment of young male offenders over sixteen years of age who were at the time of the study inmates of the State Reformatory at Pontiac, Illinois. These young men were inmates of the companion institution to the St. Charles school, which has been for many of them the "prep school" of the reformatory.

The investigations in these two institutions were carried on at about the same time. Consequently, the data should be comparable, and the findings should serve to supplement each other. Fifteen hundred young men between the ages of sixteen and twenty-six were studied at Pontiac. Their median age on admission was nineteen years and four months. Over 99 per cent of them had attended public or private schools for varying lengths of time. Soon after incarceration each offender is given the Army Alpha examination and the Stanford Achievement Test. These tests are administered to small groups by the director of education of the reformatory.

Four phases of the educational attainment of these young men are here considered: the last school grade completed and the age at leaving school, achievement on the Stanford test, the school experiences of a selected group, and the interrelations of these factors.

LAST GRADE COMPLETED

The distribution in Table I shows that relatively few boys in the reformatory have had schooling beyond the traditional eight grades

¹ Howard A. Lane and Paul A. Witty, "The Educational Attainment of Delinquent Boys," *Journal of Educational Psychology*, XXV (December, 1934), 695-702.

of the elementary school. The median grade completed was Grade VII. Nearly 80 per cent of the offenders had never gone beyond Grade VIII. The United States Office of Education reported in 1930 that "the length of public-school life today is just a little beyond the completion of the first year of high school."¹ Only 13 per cent of the reformatory boys exceeded this standard, and the average offender had had less than this amount of schooling.

TABLE I

PERCENTAGE DISTRIBUTION OF 1,500 MALE OFFENDERS OVER SIXTEEN YEARS OF AGE AT PONTIAC, ILLINOIS, STATE REFORMATORY ACCORDING TO LAST GRADE COMPLETED IN SCHOOL

Grade Completed	Per Cent	Grade Completed	Per Cent
4th year college	0.6	VII	15.8
3d year college	0.7	VI	24.1
2d year college	1.0	V	7.4
1st year college	0.2	IV	4.5
XII	2.0	III	2.2
XI	2.2	II	1.0
X	5.8	Never attended school	0.6
IX	8.0		
VIII	30.2	Total	100.0

This apparent deficiency in grade attainment was in part due to retardation. The average reformatory boy had left school at the age of fifteen years and four months, although he had passed through only seven grades. If six years is assumed as the average age for starting the first grade, the median offender was retarded at least one year. The typical offenders left school between the ages of twelve and sixteen.

It is of some interest to note that less than 1 per cent of these boys were attending school at the time they committed the offenses which sent them to the reformatory. At this same period 20 per cent of the general population in Illinois between eighteen and twenty years of age were attending school.² This age range includes well over half

¹ *Biennial Survey of Education: 1926-1928*, p. 434. United States Office of Education Bulletin No. 16, 1930.

² *Fifteenth Census of the United States: 1930: Population, Vol. III, Part I (Reports by States, Showing the Composition and Characteristics of the Population for Counties, Cities, and Townships or Other Minor Civil Divisions)*, p. 595.

the offenders. It would seem that being in school is somewhat of a safeguard against delinquency.

RESULTS ON STANFORD ACHIEVEMENT TEST

The grade level of achievement of the median delinquent boy, as shown in Table II, was, in all tests but three, below his level of grade attainment in school progress. The range in educational ages was from 5.7 to 19.2 years, with a median of 12.6 years. The range in educational quotients was from 24 to 123, the median being 77.6.

TABLE II

MEDIAN SCORES AND GRADE LEVELS ATTAINED ON STANFORD ACHIEVEMENT TEST BY 1,500 MALE OFFENDERS OVER SIXTEEN YEARS OF AGE AT PONTIAC, ILLINOIS, STATE REFORMATORY

Test	Median Score	Grade Level
Arithmetic reasoning.....	86.7	7.6
Word meaning.....	85.3	7.4
Physiology and hygiene.....	84.2	7.2
Language usage.....	81.5	6.9
Geography.....	80.9	6.8
History and civics.....	80.6	6.8
Paragraph meaning.....	80.5	6.8
Spelling.....	77.1	6.3
Literature.....	76.6	6.3
Arithmetic computation.....	66.9	5.4
Complete test.....	79.0	6.6

PROGRESS AND ACHIEVEMENT OF A SELECTED GROUP

A special study was made of 165 inmates who had been in school within four years prior to the time of the investigation. This smaller group was somewhat more intelligent than the entire group and had attended school, on the average, for one-half year longer. The picture of their school experience should be slightly more promising than that of the entire group.

Information about the school achievement and progress of this group was obtained by means of questionnaires and visits to the schools that they had last attended. Of the 165 subjects, 90 had last attended elementary schools; 18, junior high schools; 48, high schools; 5, one-room rural schools; 2, prevocational schools; 1, a re-

form school; and 1, a continuation school. The average boy had attended the school questioned for 2.7 years.

Scholastic ratings, based on transcripts of credits, classify the the group as follows: in the highest quarter of their classes, 3 per cent; in the third quarter of their classes, 17 per cent, in the second quarter of their classes, 46 per cent, in the lowest quarter of their classes, 34 per cent.

Scholastic ratings based on teachers' estimates classify the group as follows: boys with good scholastic records, 8 per cent, with fair scholastic records, 45 per cent, with poor scholastic records, 47 per cent. The teachers reported that 14 per cent of these boys had never failed a course, 50 per cent had failed some courses, and 35 per cent had failed often. The causes of failure and of poor scholastic records that were most frequently mentioned by the boys' teachers were low mental ability, lack of interest, excessive absence from school, indifference, lack of effort, and poor home surroundings.

It has already been mentioned that the general group of fifteen hundred offenders had had two years less schooling, on the average, than the general population in the United States. That part of this difference is due to retardation was suggested by the over-agency of the boys when they left school. Further evidence of retardation is revealed by the fact that, of the selected group of 165, 52 per cent were reported as retarded, 46 per cent as having made normal progress, and only 2 per cent as having been accelerated. The average amount of retardation was reported to have been 1.5 semesters.

The chief reasons for retardation, as reported by the teachers, were similar to those given for failure and poor work. These reasons for the common conditions of failure and retardation place most of the responsibility on the boys' deficiencies or lack of interest and on the home. Nothing was said of any possible responsibility on the part of teachers or school.

INTERRELATIONS BETWEEN FACTORS

The fact that educational age, educational quotient, last grade completed, age at leaving school, teachers' ratings of scholastic achievement, and quartile rank in marks are positively related is of interest chiefly from the standpoint of the reliability of the data presented. It is reasonably safe to assume that factors involved in edu-

cational attainment and success should be related in some fashion with the results of a standardized achievement test. If there is a fair degree of relationship, it may probably be concluded that the measures of attainment are sufficiently accurate to give validity to the conclusions drawn from the data.

TABLE III
EDUCATIONAL AGE, EDUCATIONAL QUOTIENT, AND GRADE ATTAINMENT COMPARED WITH RATINGS OF SCHOLASTIC ATTAINMENT OF 165 MALE OFFENDERS AT PONTIAC, ILLINOIS, STATE REFORMATORY

Scholastic Rating	Median Educational Age	Median Educational Quotient	Median Grade Completed
By teachers:			
Good	15.2	97.5	8.00
Fair	13.4	84.7	7.54
Poor	13.1	81.9	7.25
From transcripts of credits:			
Highest quarter	14.6	95.0	8.00
Third quarter	15.6	92.8	7.33
Second quarter	13.3	85.0	7.55
Lowest quarter	13.2	83.3	7.55

TABLE IV
CORRELATIONS BETWEEN VARIOUS MEASURES OF EDUCATIONAL ATTAINMENT OF 1,500 MALE OFFENDERS AT PONTIAC, ILLINOIS, STATE REFORMATORY

Factors Correlated	Correlation
Educational age and grade completed .....	.60 ± .02
Educational age and age left school .....	.21 ± .03
Educational quotient and grade completed .....	.57 ± .02
Educational quotient and age left school .....	.18 ± .03
Grade completed and age left school .....	.46 ± .02

Since the teachers' ratings and the quartile ranks of scholastic achievement might be open to question, the boys were grouped on these two bases and compared with respect to median educational age, educational quotient, and grade completed. Table III shows a consistent relation between teachers' ratings and the three measures of attainment. The relation between ratings based on transcripts and the three measures of attainment are not so consistent, probably because subjective errors were made in evaluating the transcripts.

Intercorrelations of four of the factors are given in Table IV. For

purposes of general group prediction the correlation of school grade completed with the other three factors is high enough to have some significance.

CONCLUSIONS

Retardation, failure, lack of interest, and poor adjustment to the school situation are outstanding characteristics of the school experiences of these young men. This evidence is substantially similar to that presented by Lane and Witty with regard to younger delinquent boys.

It would appear that the school has a special responsibility in dealing with failing and retarded boys, from whose ranks the inmates of the reformatory seem to be rather commonly recruited. Complete study of such cases, involving all the elements of good case method, should be made by the school and co-operating agencies before the boys are allowed to drop out of school. Too frequently such an effort is not made until after the boys have left school and have made missteps. Organized as it is for such a task, the school cannot let the boys slip out into a social environment in which the controls and the guidance that the school is equipped to furnish must come, if at all, in a wholly haphazard and incidental manner.

SELECTED REFERENCES ON ELEMENTARY- SCHOOL INSTRUCTION

I. CURRICULUM, METHODS OF TEACHING AND STUDY, AND SUPERVISION

LEO J. BRUECKNER
University of Minnesota

In this bibliography are included selected publications in the field of the elementary-school curriculum, methods of teaching and study, and supervision of elementary-school instruction which appeared during the period from April 1, 1934, to March 31, 1935. Foreign-language titles have not been included, nor have popular articles on these topics been cited unless they present facts not generally known or an original and challenging point of view. The materials on method deal with general method. Studies dealing with specific subjects will appear in subsequent issues. Although a systematic scrutiny was made of most of the important publications of the period indicated, it is probable that valuable contributions have been overlooked.

CURRICULUM¹

327. AMERICAN HISTORICAL ASSOCIATION, COMMISSION ON THE SOCIAL STUDIES IN THE SCHOOLS. *Conclusions and Recommendations of the Commission*. New York: Charles Scribner's Sons, 1934. Pp. xii+168.

The concluding volume of a series of reports, some as yet unpublished, which contains a summary statement of the major conclusions growing out of the research and the reflection of the commission that are reported in full in the several other volumes of the complete report.

328. BARNES, C. C. "The Curriculum in the Social Studies: Commentaries on the 'Fourth Yearbook': I. Modern Life and Problems in the Social Science Curriculum," *Social Studies*, XXV (November, 1934), 355-59.
Emphasizes the importance of combining the study of present and past as a basis for insuring effective teaching in the social studies.

¹ See also Items 418 and 426 in the list of selected references appearing in the October, 1934, number of the *Elementary School Journal*, Item 480 in the November, 1934, number of the *Elementary School Journal*, Item 9 in the January, 1935, number of the *School Review*, and Item 329 in the April, 1935, number of the *School Review*.

329. BEALE, HOWARD KENNEDY. "Forces That Control the Schools," *Harper's Magazine*, CLXIX (October, 1934), 603-15.
Discusses the forces and pressure groups in society that determine, to a large extent, the rôle which the school can play in guiding or directing social change.
330. BOBBITT, FRANKLIN. "Questionable Recommendations of the Commission on the Social Studies," *School and Society*, XI (August 18, 1934), 201-8.
A pointed criticism of *Conclusions and Recommendations of the Commission* (Item 327 in this list), dealing with its accepted view of the nature of the society of the future, its failure to make specific recommendations, and its failure to use the scientific method as a basis for its conclusions.
331. BOBBITT, FRANKLIN. "The Trend of the Activity Curriculum," *Elementary School Journal*, XXXV (December, 1934), 457-66.
A presentation of a series of activity levels useful as a guide in determining the degree to which a given curriculum can be identified with the activity curriculum.
332. BRUECKNER, LEO J. "Intercorrelations of Arithmetical Abilities," *Journal of Experimental Education*, III (September, 1934), 42-44.
Reports low intercorrelations among tests of the informational, the computational, the sociological, and the psychological functions of arithmetic and recommends the enrichment of the arithmetic curriculum so that all four functions will be given adequate consideration.
333. COUNTS, GEORGE S. *The Social Foundations of Education*. Report of the Commission on the Social Studies of the American Historical Association, Part IX. New York: Charles Scribner's Sons, 1934. Pp. xiv + 580.
Deals with three aspects of society and education: the basic forces, present trends and tensions, and philosophy and program formation.
334. *The Curriculum*. Review of Educational Research, Vol. IV, No. 3. Washington: American Educational Research Association of the National Education Association, 1934. Pp. 121-252.
A series of chapters summarizing curriculum research in the several subjects of the elementary school reported during a three-year period subsequent to the publication of an earlier summary.
335. DUNN, FANNIE W. "Tentative Criteria for Curriculum Selection," *Progressive Education*, XI (October, 1934), 373-78.
Lists a series of criteria based on a report of the Committee on Criteria for the Rural Section of the Progressive Education Association.
336. FITZGERALD, JAMES A., and GEOGHEGAN, PATRICIA S. "Letter-Form Errors in Letters Written by Fifth-Grade Pupils," *Elementary School Journal*, XXXV (September, 1934), 42-47.

An analysis of 3,711 errors in letters written by rural and urban pupils in life outside the school. Errors in closing, spacing and margins, headings, salutation, and signature are reported separately.

337. HAGGERTY, M. E. "The Low Visibility of Educational Issues" *School and Society*, XLI (March 2, 1935), 273-83.

A penetrating criticism of *Conclusions and Recommendations of the Commission* (Item 327 in this list).

338. HARAP, HENRY; DALE, EDGAR; and WEEDON, VIVIAN. "Bibliography of Curriculum Making, March, 1933, to March, 1934," *News Bulletin*, Vol. V, No. 6, pp. 11-37. Cleveland, Ohio: Society for Curriculum Study, Western Reserve University, 1934.

The sixth annual bibliography prepared by the society, including 246 items published from March, 1933, to March, 1934.

339. HULLFISH, H. GORDON. "The Philosophy of Education in a Changing Social Order," *Educational Administration and Supervision*, XX (May, 1934), 365-72.

A discussion of the importance of education and educational philosophy to the direction of social trends.

340. KILPATRICK, WILLIAM H. "Public Education as a Force for Social Improvement," *Official Report of the Department of Superintendence*, 1935, pp. 126-33. Washington: Department of Superintendence of the National Education Association, 1935.

Discusses the function of the school as related to the varying social and political philosophies among the nations.

341. MERRIAM, CHARLES E. *Civic Education in the United States*. Report of the Commission on the Social Studies of the American Historical Association, Part VI. New York: Charles Scribner's Sons, 1934. Pp. xxii+196.

Examines the social sciences to determine their contribution to civic education in the light of modern trends in society and government.

342. NEWLON, JESSE H. "The Defective Vision of Some of the Critics of the Conclusions and Recommendations of the Social Studies Commission," *School and Society*, XLI (March 30, 1935), 409-17.

A defense of the conclusions and recommendations, which have been severely criticized by numerous writers (see Item 327 in this list).

343. REISNER, EDWARD H. "Can the Schools Change the Social Order?" *Teachers College Record*, XXXVI (February, 1935), 388-96.

Believes that "the schools are the agent of the social order rather than its guide and ruler" but that "teachers could do invaluable service in deepening and promoting the sense of community." Gives numerous specific suggestions.

344. SNEEDEN, DAVID. "Education and Social Change." *School and Society*, XL (September 8, 1934), 311-14.
Presents the view that the school probably is not an instrumentality for determining the direction of social change.
345. *Social Change and Education*, pp. 1-268. Thirteenth Yearbook of the Department of Superintendence of the National Education Association. Washington: Department of Superintendence of the National Education Association, 1935.
Reviews the nature of recent social trends, summarizes the efforts of society to adjust to the change, and points out some of the implications for education of social and economic adjustments.
346. *The Social-Studies Curriculum*. Fourth Yearbook of the National Council for the Social Studies. Philadelphia: McKinley Publishing Co., 1934. Pp. 228.
Discusses the main trends, including the marked tendency toward expansion, of the social-studies curriculum and illustrates these trends with sample curriculums in operation in school systems of various types.
347. TRYON, R. M. "The Place of History in a Program of Integration," *Elementary School Journal*, XXXIV (May, 1934), 667-73.
A brief history of the unified curriculum movement and a discussion of present trends, particularly in relation to history as a subject.
348. WARREN, DOROTHY E., and BURTON, W. H. "Knowledge of Simple Business Practices Possessed by Intermediate Grade Pupils," *Elementary School Journal*, XXXV (March, 1935), 511-16.
Reports the frequency with which children perform a series of business practices, based in part on a compilation of adult records.

METHODS OF TEACHING AND STUDY¹

349. *Aids to Teaching in the Elementary School*. Thirteenth Yearbook of the Department of Elementary School Principals of the National Education Association. Bulletin of the Department of Elementary School Principals, Vol. XIII, No. 5. Washington: Department of Elementary School Principals of the National Education Association, 1934. Pp. 117-528.
Discusses organization, application, and interpretation of many teaching devices and aids, with particular attention to the elementary school.
350. BAGLEY, WILLIAM C. *Education and Emergent Man*. New York: Thomas Nelson & Sons, 1934. Pp. xiv + 238.

¹ See also Item 291 in the list of selected references appearing in the June, 1934, number of the *Elementary School Journal*, Items 470 and 484 in the November, 1934, number of the *Elementary School Journal*, Items 151 and 158 in the April, 1935, number of the *Elementary School Journal*, Item 364 in the May, 1935, number of the *School Review*, and Item 415 in the June, 1935, number of the *School Review*.

Discusses the functions of education in the light of the theory of emergent evolution. Education may make human progress "continuous rather than saltatory."

351. BURTON, WILLIAM H. "The Problem-solving Technique: Its Appearance and Development in American Texts on General Method," *Educational Method*, XIV (January, February, and March, 1935), 189-95, 248-53, 338-42.

A discussion of the problem-solving technique from the historical point of view.

352. COURTIS, S. A. "Indoctrination versus Laissez Faire in Education," *Educational Administration and Supervision*, XX (December, 1934), 641-49.

A presentation and defense of the theory of indoctrination for social unity.

353. *Educational Diagnosis*. Thirty-fourth Yearbook of the National Society for the Study of Education. Bloomington, Illinois: Public School Publishing Co., 1935. Pp. x+564.

A comprehensive discussion of factors associated with learning difficulty, principles and techniques of diagnosing strengths and weaknesses in various fields of learning, suggested remedial treatments for difficulties, and administrative measures for making effective a program of diagnosis and remedial teaching.

354. *The Historical Approach to Methods of Teaching the Social Studies*. Fifth Yearbook of the National Council for the Social Studies. Philadelphia: McKinley Publishing Co., 1935. Pp. xii+204.

Presents a variety of approaches to the background of method, written from a genetic or chronological point of view.

355. KILPATRICK, WILLIAM H. "The Essentials of the Activity Movement," *Progressive Education*, XI (October, 1934), 346-59.

By contrasting practices in traditional and progressive schools, the author seeks to bring out the essentials of the activity movement. Presents biological and philosophical bases.

356. LICHTENSTEIN, ARTHUR. *Can Attitudes Be Taught?* Johns Hopkins University Studies in Education, No. 21. Baltimore: Johns Hopkins Press, 1934. Pp. x+90.

Attempts to measure, over a period of a year, the influence of education on scientific open-mindedness and on preference of outdoors to motion pictures, as measured by tests, ballots, and diaries.

357. MCCONNELL, T. R., HENRY, LYLE K., and MORGAN, CLELLEN. *Studies in the Psychology of Learning*, II. Educational Psychology Series, No. 2. University of Iowa Studies in Education, Vol. IX, No. 5. Iowa City, Iowa: University of Iowa, 1934. Pp. 144.

Contains reports of three experimental studies of learning in arithmetic and geometry, dealing with the rôle of insight as a factor in thinking and problem-solving.

358. MORRISON, HENRY C. *Basic Principles in Education*. Boston: Houghton Mifflin Co., 1934. Pp. iv+452.

Develops the theme that education is a process of adjustment and that adjustment is achieved through specific adaptations to the problems set by the physical environment, human society, and the inner life of the individual. Man has found a new method of adjustment through the learning adaptations which he discovers and uses.

359. RUGG, HAROLD. "After Three Decades of Scientific Method in Education," *Teachers College Record*, XXXVI (November, 1934), 111-22.

A critical examination of the foundations, practices, and products of three decades of scientific method in education.

360. STREET, ROY F. "Factors Related to Maladjustment in School," *Elementary School Journal*, XXXIV (May, 1934), 676-80.

A partial report of a study, extending over two and a half years, showing that the fear reaction (which may arise from a number of causes or conditions) is one of the major factors in the maladjustment of the school child.

361. WHIPPLE, GUY M. "The Activity Movement from an Adverse Point of View," *Progressive Education*, XI (October, 1934), 340-45.

A discussion of the shortcomings of the activity movement, particularly with reference to its careless adoption, application, and administration.

362. WOODRING, MAXIE N., and FLEMING, CECILE WHITE. "A Third Bibliography on Study," *Teachers College Record*, XXXVI (February, 1935), 397-408.

A selected and annotated bibliography of books, articles, and studies on the subject of study published between 1932 and 1935.

363. WOODY, CLIFFORD, and OTHERS. "A Symposium on the Effects of Measurement on Instruction," *Journal of Educational Research*, XXVIII (March, 1935), 481-527.

Consists of a series of articles in which the values of measurement to instruction are discussed, as well as its negative contributions.

SUPERVISION¹

364. ADAMS, FAY. *The Initiation of an Activity Program into a Public School*. Teachers College Contributions to Education, No. 508. New York: Teachers College, Columbia University, 1934. Pp. vi+80.

An analysis of difficulties encountered in initiating an activity program and a series of evaluated "solutions" of the problems presented.

¹ See also Items 23, 24, and 32 in the list of selected references appearing in the January, 1935, number of the *Elementary School Journal*, Item 135 in the April, 1935, number of the *Elementary School Journal*, Items 20, 23, and 33 in the January, 1935, number of the *School Review*, and Items 71 and 83 in the February, 1935, number of the *School Review*.

365. BROWNELL, WILLIAM A. "The Use of Objective Measures in Evaluating Instruction," *Educational Method*, XIII (May-June, 1934), 401-8.
A discussion of three dangers arising from overemphasis on objectivity or objective measurement in evaluating instruction: (1) lack of depth of measurement, (2) misrepresenting the place of judgment, and (3) narrowing unduly the comprehensiveness of measurement.
366. DICKSON, VIRGIL E. "The Place of Scientific Research in the New Education," *Educational Method*, XIII (April, 1934), 337-48.
Describes the kinds of research necessary to evaluate the progressive-education movement and the use that can be made of the results of research in solving the problems that the movement faces.
367. HORN, ERNEST. "Another Chapter on Tests for the Volume of 'Conclusions and Recommendations,'" *Social Studies*, XXVI (January, 1935), 13-22.
A constructive discussion of the uses of tests in instruction, prepared by several members of the Commission on the Social Studies of the American Historical Association who were unwilling to accept the destructive point of view relative to tests expressed in *Conclusions and Recommendations of the Commission* (Item 327 in this list).
368. HUMPHREYS, PHILA. "A Supervisory Program in Written Expression," *Elementary School Journal*, XXXV (March, 1935), 505-10.
Describes the steps in a complete supervisory program, including initial survey and a supervisory follow-up program.
369. HURD, A. W. "How May Present-Day Educational Practice Be Improved?" *School and Society*, XXXIX (April 7, 1934), 442-44.
Reports the ranking of 43 "constructive criticisms" selected from the publications of 56 authorities, based on favorable ratings by at least 80 per cent of 154 judges.
370. MCGINNIS, W. C. "Supervisory Visits and Teacher Rating Devices," *Journal of Educational Research*, XXVIII (September, 1934), 44-47.
Reports the results of a questionnaire survey of the reactions of more than three thousand supervisors and teachers to supervisory check lists and visits.
371. MERIAM, JUNIUS L. "A Critical Survey of 1,000 Activities," *Journal of Experimental Education*, II (June, 1934), 327-32.
A statistical analysis of various phases of reports of activity units.
372. MONROE, WALTER S. "Hazards in the Measurement of Achievement," *School and Society*, XLI (January 12, 1935), 48-52.
A criticism of the uncritical acceptance of objective measurement.
373. MOORE, EOLINE WALLACE. "Difficulties Recognized by Elementary Teachers," *Educational Administration and Supervision*, XXI (January, 1935), 51-55.

Reports a study of the supervisory needs of city and rural elementary-school teachers, tending to show that the teachers were aware of eight main types of difficulties, the most frequently mentioned being problems concerned with technique of instruction.

374. ORATA, PEDRO T. "Begging the Question in the Name of Science," *Educational Administration and Supervision*, XX (April, 1934), 141-63.

A summarization of the main points of attack on scientific research methods applied to education.

375. PISTON, FREDERICK. "Measuring Some Subtle Values of Progressive Education," *Educational Method*, XIV (December, 1934), 118-24.

An attempt to evaluate outcomes of progressive education through the frequency of occurrence of thirty-eight trait actions listed by judges as desirable objectives.

376. PISTON, FREDERICK. "A Valid Scientific Appraisal of an Enterprise in Progressive Education," *Journal of Educational Research*, XXVIII (February, 1935), 433-49.

Describes an attempt to measure the values of a progressive-education program in terms of changes in behavior patterns of pupils. An experimental study.

377. ROBINSON, ARTHUR E. "Are We Teaching Arithmetic Effectively? A Summary of a Recent Study," *Mathematics Teacher*, XXVIII (April, 1935), 215-22.

Reports gross inadequacies in preparation of teachers of arithmetic as revealed by (1) an analysis of examination papers for licenses to teach, (2) observation of 650 class periods, and (3) 200 conferences with teachers.

378. *Scientific Method in Supervisory Programs*. Seventh Yearbook of the Department of Supervisors and Directors of Instruction of the National Education Association. New York: Teachers College, Columbia University, 1934. Pp. xiv + 194.

Describes the application of scientific method in the organization and the planning of supervision in the appraisal of instruction, in the promotion of teacher growth, in curriculum studies, in the evaluation of courses of study, and in the selection and preparation of instructional materials.

379. TILTON, J. W. "The Feasibility of Ability Grouping," *Journal of Educational Research*, XXVIII (September, 1934), 30-35.

Summarizes data from numerous studies which compare the growth of pupils of various mental levels when taught in ability groups. Concludes that results are favorable for ability grouping.

380. TROW, WILLIAM CLARK. "How Shall Teaching Be Evaluated?" *Educational Administration and Supervision*, XX (April, 1934), 264-72.

A discussion of the achievement test and pupil performance as bases for teacher evaluation and rating.

Educational Writings

REVIEWS AND BOOK NOTES

Emphasizing differences between the various abilities of an individual.—The recognition of "individual differences" among groups of children has become so general and so basic to our everyday thinking in education that we now seldom use the term; we accept the fact and think in terms of adjustments that are to be made. Similarly, we recognize differences in the various abilities of an individual child, and we attempt to adjust our emphasis in instruction so that serious deficiencies in the total personality of the child will be removed. According to a book by Segel,¹ however, these differences in an individual's abilities have not received enough attention, and what we have been doing with reference to evening them up represents something of an offense against democracy.

In presenting this thesis, the author is following the thought of T. L. Kelley, whose opinions and studies are quoted freely throughout the book. The underlying philosophy concerning the loss to society because public education tends to reduce differences between the abilities of an individual was all presented in Kelley's *The Influence of Nurture upon Native Differences* (New York: Macmillan Company, 1926) and in his later *Interpretation of Educational Measurements* (Yonkers-on-Hudson, New York: World Book Company, 1927). This interest in developing to the utmost the one-sidedness of an individual is epitomized in Kelley's declaration (quoted by Segel on page 15): "A child who is generally superior, but very markedly superior in some one trait, may become one of the great leaders of the race. This will not be accomplished by his being a general all-round good man." To avoid this latter catastrophe, we are urged to determine early the idiosyncracies in the abilities of the child by applying the techniques of "differential diagnosis."

The procedure advocated rests on the assumption that the upper limit of each ability is innate and persistent and that marked differences in these limits will typically be found in each child. In an environment that is equally favorable to all types of ability, differences between the levels of development of various abilities will become greater. This situation is as it should be. The school therefore should strive to provide an environment that is strictly neutral until the innate propensities of the individual stand out in clear relief, and then the school should place great emphasis on the most outstanding abilities of the in-

¹ David Segel, *Differential Diagnosis of Ability in School Children*. Baltimore: Warwick & York, Inc., 1934. Pp. viii+86. \$1.40.

dividual. This emphasis will, of course, be accompanied by "scientific" guidance of pupils "into channels in which they will be successful" (p. 10). In this way genius will be preserved and recruited, and the downward course of civilization will be stopped.

To those who are already imbued with this point of view, the present volume will undoubtedly be welcome. To others it must appear as representing questionable practice. One who knows children and who sees how their interests are molded by relatively chance factors, how easily they stumble in their learning because of some emotional block, how they are moved by prejudices and ideals, and how strong the factors of play and home environment are in shaping their total personality patterns—such a one must see the embryonic differences in innate ability swallowed up by variations in environmental factors that leave the pure theory little more than an academic sterility. Observing that the author in one place (pp. 4-5) ascribes the differences between abilities to the psychological nature of mankind, in another (p. 8) to the particular school subjects which are measured, and in still another place (pp. 10-11) to the methods of instruction used, we may conclude that he also is somewhat too practical to adhere to the theory to which he subscribes.

Perhaps the most disturbing aspect of such a theory—were it possible to put the theory into practice—would be its incidence on social reality. Society does not stand ready with catalogued opportunities for each person to exercise his peculiar powers as he may see fit. The vocational activities of practically every person represent serious compromises of his desire for self-expression with the demands of society for the rendering of a particular service, which is definitely defined and highly circumscribed by the expectations of employers. Within rather narrow limits of choice, one takes up one's work where the opportunity lies, and it is wholly gratuitous to assume that nature will produce specialized abilities in proportion to the need for them. The opportunities for geniuses are peculiarly precarious; should nature decree that half a million of the oncoming generation should be Platos or Carusos, society would probably decree that several hundred thousand of these illustrious youngsters would either adapt themselves to other vocations or subsist on relief rations. Too bad, of course, but, after all, enough is enough!

A fair appraisal of the requirements of the modern vocational world, with its host of technological, economic, and other industrial hazards, makes it unmistakable that what is needed is a *breadth* of training in order that the individual may take advantage of opportunities that occur and in order that he may continue to serve society efficiently in new lines of work when the service in which he has secured experience is no longer desired by society. We may occasionally lack outstanding leaders, but it is unquestionably more serious to our social welfare to lack versatility among the great numbers of people. It may be stated with much truth that the economic chaos in which the world finds itself today is due to the fact that specialized leaders (research workers and industrial managers) have moved much more rapidly than the masses of the population have been

able to adapt themselves to the changed situations created. We are suffering today from too much individualized vocational ability and too little broad, socialized understanding. To those who think that all our large problems could be solved by the production of a few geniuses, the answer is that, in a democracy, they cannot.

Vast areas of personal development apparently lie outside the pale of recognition by the author of this book. Efficiency is the goal of life, and knowledge is synonymous with education. For example: "Special attention should be given to deficiencies [after the sixth grade] only if such deficiencies are in a subject which contains essentials of the common body of knowledge or which is related in such a way as to be a fundamental necessity to the vocation or vocations towards which it seems the child is pointed" (p. 14). If the previous training of the junior high school child has been lacking in the cultivation of various forms of appreciation (of art, of music, of nature, of desirable personality traits in others), it is no matter; let his life be forever impoverished. If he has not developed habits of morality, of tolerance, of respect, of social participation, of sharing in group responsibility, it is no matter; only knowledge and efficiency count. If he is conceited, bigoted, cantankerous, and fanatical, it is immaterial; differential diagnosis will reveal his efficiency and scientific vocational guidance will make him a success. Possibly the excerpt quoted above (and other passages to the same effect) were hastily and unthinkingly written; but this possibility will not save educational measurement from the scorn of practical teachers who read the treatise and ask, "How much of life are our measurement experts willing to throw away in order to make their technical problems simple and easy?"

As a presentation of techniques with which the author is concerned, the book is interesting and convenient. All the special formulas are taken from the earlier writings of Kelley, but the material is here brought together for the first time. Derivations of formulas are not given, nor are underlying assumptions referred to. The general (gross) logic of the analytical procedures is given clearly and simply. As is common, the probable-error technique is strained by the practical interpretations put on it; no distinction is made between differences which are statistically significant and those which are practically significant, although the two do not necessarily have anything in common. The entire work is directed to the determination of *differences in abilities*, although "diagnosis" should be concerned with bringing to light the *nature of a child's difficulty* with certain mental processes. (The latter objective, incidentally, is regarded by the author as an unfortunate *misuse* of diagnostic tests.)

The author offers no support for the position which he takes. The problems raised are far more than technical problems; they are fundamental in the psychology and the philosophy of our society. A treatise which presented an appropriate analysis and discussion of these real questions would be welcome. The author of the present book gives no evidence that he sees the basic problems which are involved.

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An eclectic view of educational psychology If one were to gather a complete collection of all the textbooks in educational psychology, good and poor, which have been written since the turn of the century, the collection would undoubtedly be surprisingly large. Even the number of books on this subject possessed by the teacher of educational psychology who attempts to keep in reasonably close touch with the field is sizable. One is tempted to think at times that practically everybody in the field, or for that matter in the whole realm of education, has undertaken at some time or other to write a textbook in educational psychology. Naturally, then, the question which comes to one's mind, when examining a new addition to the already lengthy list, is whether the book offers novelty either of material or of treatment.

When the reader applies this criterion to Leary's book,¹ his conclusions concerning the volume are varied. It is likely that most critical readers would be inclined to say that the book's claim to distinction lies rather in skill of treatment than in novelty of evidence.

The treatment begins with a psychological analysis of the problem of teaching. This chapter is well done, from the viewpoint both of opening the student toward the discussions to come and of making clear the place of educational psychology in the field of social science. The function of the teacher is touched as experimental, requiring a person who is informed, not so much on the traditions of method, as on the principles of psychology.

There follow three chapters on the nature of behavior from both structural and functional angles. These chapters are traditional in material and treatment and are interspersed with citations from traditional sources.

The following chapter on "Different Levels of Learning" is somewhat diffuse. For this defect the author is not to be entirely blamed. Everyone seems to be interested in levels of learning, and no one seems to be able to give a clean cut description in terms of the characteristics of the several levels. Perhaps such treatment is not necessary. The reviewer, in attempting to delineate generalized criteria by which the level of a given conduct phenomenon may be judged, has encountered the same difficulty (Francis F. Powers and Willis L.uhl, *Psychological Principles of Education*, p. 18. New York: Century Company, 1933).

Leary's discussion of levels of learning is followed by two chapters on "purpose" in behavior. These are well done and probably come as close to making the nature of purposive conduct clear to the comparative beginner in psychology as anything could. There are, of course, plenty of psychologists who would question the value of so extended a treatment of purpose, but, after actually reading the chapters, one is not inclined to push this point, so reasonably balanced is the syncretism.

Chapter viii, "Reasoning and Higher Levels of Learning," returns to a dis-

¹ Daniel Bell Leary, *Educational Psychology: An Application of Modern Psychology to Teaching*. New York: Thomas Nelson & Sons, 1934. 1p. xiv + 374. \$1.50.

cussion of levels. Again, no systematic attempt is made to set "levels" apart. As close an approach as occurs is found in the following:

By and large, however, and allowing for all such mergings and integrations, some learning is emphatically motor, i.e., has as end product the doing of some specific new act. There is also specific verbal learning, such as the working-out of the steps in a problem through the use of language and other symbols. Finally, there is emphatic emotional learning, i.e., such modification as a religiously converted personality or a person in love undergoes [p. 197].

The psychological phases of the curriculum and method are next attacked—and successfully. It is here that Leary most nearly justifies a claim to unique contribution of treatment. Other authors have, of course, given discussions of the psychological phases of curriculum and method, although systematic treatment of these is comparatively new.

Personality and mental hygiene are then treated. The material is eclectic, as is, indeed, the whole book. Tests of personality are discussed, and examples of the tests are given. No mention is made of the psychology of guidance or character, like that found, for example, in such a textbook as *Psychology for Teachers* by Benson, Lough, Skinner, and West (Boston: Ginn and Company, 1933 [revised]).

Leary's book next gives a short chapter of eighteen pages on educational measurement, in which an attempt is made not only to discuss the psychological significance of measurement but also to impart some of the techniques of statistical treatment of data. In the reviewer's opinion, a chapter of this type is of highly doubtful value. Certainly, it serves no purpose in institutions which have a required course in measurement for beginners, and there is considerable doubt about what will be accomplished by students who take no such required course but attempt to master the complex material in a few days.

The last chapter is a "Summary from the Point of View of a Philosophy of Education." This title would cause one to speculate whether Leary is one of those who believe that psychology, educational and otherwise, is still a handmaiden of philosophy. In spite of some statements in the chapter which might lend color to this assumption, the reviewer believes that he is not. The chapter is rather an attempt to re-orient the student after a variety of discussion. It is creditably done.

The format of the book is not especially good, and the indexing is highly abbreviated. On the other hand, the style and the diction are generally excellent. Statements of clarity abound. General balance is maintained throughout.

FRANCIS F. POWERS

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A basic textbook in science for Grade V.—The well-known series of Nature and Science Readers has added the fifth book¹ to the four volumes published in 1932

¹ Edith M. Patch and Harrison E. Howe, *Science at Home*. New York: Macmillan Co., 1934. Pp. xiv+450. \$0.92.

and 1933. The series, including the fifth book, is intended for use as basal text-books in a science course in the elementary school. The adaptability of the fifth book, as well as that of the series, for supplementary readers in those schools that do not yet have a science course on a recognized basis is indicated.

The pages of this book have many interesting content materials. The authors have apparently surveyed the larger content areas of specialized science for subject materials that are somewhat new to science in the elementary school. The material has been well adapted in most cases to Grade V and seems to be consistent with the title *Science at Home*. The teacher of general science will be surprised to find that a considerable amount of material long considered part and parcel of the junior high school course in science has been included in this book—quite justifiably so, in the opinion of the reviewer.

Unfortunately, much of the content lacks challenge, largely as a result of its organization. The fifth-grade child using the book as a textbook will undoubtedly leave it much richer in science subject matter in the form of isolated facts. The philosophy that is today guiding thought in elementary science is, however, making every attempt to rid itself of this type of organization. For example, the first half of Part I, on wild flowers in gardens, presents individual lessons on the purple foxglove, snapdragons, butter-and-eggs, and the turtlehead. Such a presentation is, in the reviewer's judgment, little more than an object lesson. Questions such as the following might well be asked about this division: What larger biological principles carry through? What learning elements will be expressed as a result of working through the division? Does this material tend toward immediate or subsequent integration of the child's scientific knowledge into useful perceptions of broad relationships? Will the material enrich the child's experience by revealing the significance and the orderly processes behind the things he sees every day? Is the material contributory to problem solving in its general sense or merely to some collection of factual details?

While such organization characterizes much of the book, the intrinsic value of some of the content helps to relieve this deficiency, as in the last section, which discusses food. Here is found an excellent assemblage of materials that emphasize the development of proper attitudes regarding health through scientific application. Questions that might arise in the mind of the child seem to have been anticipated by the authors and are answered in a manner well within the understanding of a fifth-grade pupil.

While the reviewer fully appreciates the authors' attempts to include physical-science material, he certainly deplors the treatment given to mechanics. The following quotations are examples of inappropriate treatment:

When something having mass, like the hammer head, is put into motion to give velocity, it is said to acquire *momentum*. We can measure this momentum and have some idea about how hard the hammer blow was struck. Momentum equals mass multiplied by velocity. . . . Then you would hit the nail with a momentum of twenty, because $2 \text{ (mass)} \times 10 \text{ (velocity)} = 20 \text{ (momentum)}$ (p. 213).

If you call the smaller boy Working Force and the larger boy Resisting Force, you

may say that 50 (Working Force) $\times 8$ (Working Force's distance from fulcrum), which is $400 = 100$ (Resisting Force) $\times 4$ (Resisting Force's distance from fulcrum), which is 400 [p. 216].

Such abstract treatment, which many elementary-school teachers, untrained in science, would not fully appreciate, is a far cry from the simple object lessons of the nature-study type given in Part I.

Good but simple explanations have been made of some of the subject matter. Semi-technical words have not been avoided when they were deemed necessary for a logical development. While the grade placement of the material is generally satisfactory, there are glaring inconsistencies. The illustrations could have been materially improved; few of them really amplify the text material. Provision for experimental work has received little attention; let us hope that the authors intend to publish a teacher's handbook to assist in this important phase of elementary science.

W. W. McSPADDEN

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Arithmetic for Grades II-VI.—A textbook in arithmetic may be judged by its success (1) in teaching meanings, (2) in teaching processes, (3) in providing materials and plans for drill, (4) in furnishing useful and interesting problems, (5) in teaching how to solve problems, and (6) in providing tests and remedial work.

The first of the books reviewed here,¹ which is for use in Grade II, presents materials for the development of ideas of number and of the processes of addition and subtraction through counting, comparing numbers, and using them in familiar situations. The addition and the subtraction tables are taught, and column addition is carried as far as the addition of two two-place numbers which involve no carrying, and the work in subtraction includes exercises which involve no borrowing.

Judged by the criteria stated in the first paragraph of this review, the book ranks high. The best teaching of arithmetic in Grade II is doubtless done without placing a textbook in the hands of the pupils. This method presupposes an experienced teacher. Even for such a teacher the present book will furnish fruitful suggestions and a helpful outline, and an inexperienced teacher should find the book valuable for class use. Difficulties in studying arithmetic in books are often largely language difficulties, especially in the lower grades. The authors of this book have evidently sought to select a vocabulary that will present as few obstacles as possible in learning arithmetic. The book is successful in presenting a maximum of numerical relations with a minimum of talk. The problems are chosen from familiar situations and should be of interest to children.

¹ Leo J. Brueckner, C. J. Anderson, G. O. Banting, and Elda L. Merton, *How We Use Numbers: A Second Grade Number Book. The Triangle Arithmetics*, Philadelphia: John C. Winston Co., 1934. Pp. xii+188. \$0.60.

It is often an open question whether the pictures in a textbook in mathematics are chosen to sell the book or to teach the subject. The illustrations in this book are attractive and, in the main, useful.

More formal work in addition and subtraction is presented than will be mastered in most second-grade classrooms. The drill exercises that are given will need to be used frequently if enough drill is to be provided for the mastery of the processes. Frequent reviews are furnished under the caption "Studying What You Have Learned."

The other two books under review¹ present work in arithmetic for Grades III-VI, inclusive. Book I presents the fundamental operations with integers, the common measures, and an introduction to fractions. The work with the fundamental operations begins with the addition combinations and extends through long division with two-place divisors. Book II reviews and completes the study of the fundamental processes with integers and includes common and decimal fractions; the three problems in percentage; and the measurement of rectangles, triangles, and rectangular solids. Percentage is applied to everyday problems, discount, commission, and interest.

After a period when attention to the teaching of arithmetic has been centered in the mechanics of the subject, it is of especial interest to see what attention is paid in textbooks to giving meaning to the ideas and processes. Examples of well-selected materials for teaching meanings may be found in these books. The arithmetical processes are usually presented in a purely formal way. The reviewer finds no attempt to rationalize the fundamental operations with integers. The processes with common and decimal fractions are usually presented formally. Some of the methods of explanation seem unnecessarily difficult, for example, the explanation of the multiplication of fractions and the explanation of the multiplication of decimals. Symbols are sometimes used before the pupils are told their meanings or how to read them.

There is an abundance of material for drill. There are numerous tests, at the ends of chapters are given mental tests, achievement tests, and diagnostic tests. The problems are good, should be of interest to children, and, in the main, are arranged by topics. The directions for solving problems given in Book II should be helpful.

E. H. TAYLOR

EASTERN ILLINOIS STATE TEACHERS COLLEGE
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A textbook on the development of transportation and communication. A valuable contribution to elementary-school reading materials in the field of the social studies is made by the writers of a textbook on transportation and communica-

¹ George R. Bodley, Charles S. Gibson, Ina M. Hayes, and Bruce M. Watson, *Mastery Arithmetic: Book I*, pp. viii+336, \$0.72; *Book II*, pp. x+390, \$0.70. Boston: D. C. Heath & Co., 1934.

tion.¹ *How We Have Conquered Distance* differs from most children's books on the subject in that it presents a simple and logical picture of the evolution of these two social institutions from primitive times through the present and the possible future. Few books give so well rounded a discussion of the development of these phases of human culture.

The book is organized into twelve units, of which the first seven, or a little more than half the pages, are devoted to the story of transportation and travel. The materials are arranged chronologically, and yet land, water, and air transportation follow distinct threads of thought. The origin of spoken and written language, the making of records, and the sending of messages is developed in the section on communication. Excellent summary paragraphs introduce the sections of the units and guide the continuity.

Simplicity and dignity characterize the English. There are no involved sentences, and the necessary new or unusual words are carefully pronounced or explained. Fourth-year children will be able to use the book, yet the style is suited to pupils in Grades V and VI (although the latter will probably demand more detail than it is possible to include in a volume of this scope). Exercises at the ends of the units provide thought-provoking questions, review exercises, and extra projects. A bibliography with definite page and topic references to interesting supplementary material is arranged by units at the end of the book.

The volume is well illustrated, and the printing is excellent. One would wish that the text were not broken by the insertion of pictures a few lines from the top or the bottom of the already small page when the text could be kept intact by shifting the illustrations to the top or the bottom of the page.

When a thoroughly fine piece of selection and presentation of material from such a vast field has been made within the limits of this relatively small volume, it is perhaps unfair to wish that more attention might have been given to the development of roads, the sending of letters in Colonial days, the part played by ancient myths and legends in keeping man "air-minded," and the origin of the alphabet as worked out in recent years. It is to be hoped that this volume will be followed by others tracing the evolution of other important social institutions.

RUTH R. WATSON

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

BENNETT, H. ARNOLD. *The Constitution in School and College*. New York: G. P. Putnam's Sons, 1935. Pp. 316. \$3.50.

BERNARD, TED B. *Secondary Education under Different Types of District Organi-*

¹ Maybell G. Bush and John F. Waddell, *How We Have Conquered Distance*. New York: Macmillan Co., 1934. Pp. xiv+290. \$0.96.

- zation. Teachers College Contributions to Education, No. 642. New York: Teachers College, Columbia University, 1935. Pp. vi+24. \$1.50.
- BINING, ARTHUR C., and Bining, DAVID H. *Teaching the Social Studies in Secondary Schools*. New York: McGraw-Hill Book Co., Inc., 1935. Pp. xvi+418. \$3.00.
- BOND, GUY L. *The Auditory and Speech Characteristics of Poor Readers*. Teachers College Contributions to Education, No. 637. New York: Teachers College, Columbia University, 1935. Pp. 48. \$1.25.
- BRIGHT, EUGENE S. *The Preparation of Secondary Teachers in Teachers Colleges for Guiding and Directing Extra-Class Activities*. Jefferson City, Missouri: State Department of Education, 1935. Pp. viii+126. \$0.85 (paper); \$1.15 (cloth).
- BURR, SAMUEL ENGLE. *What Is the Activity Plan of Progressive Education?* Cincinnati, Ohio: C. A. Gregory Co. (345 Calhoun Street), 1936. Pp. vi+214. \$1.60.
- A Challenge to Secondary Education: Plans for the Reconstruction of the American High School*. Edited by Samuel Everett. New York: D. Appleton-Century Co., Inc., 1935. Pp. viii+354. \$2.00.
- CROWLEY, FRANCIS M. *The Catholic High School Principal: His Training, Experience, and Responsibilities*. Milwaukee, Wisconsin: Bruce Publishing Co., 1935. Pp. xxvi+254. \$2.50.
- DOUGHTON, ISAAC. *Modern Public Education, Its Philosophy and Background: New Social Responsibilities of the Schools in a Democracy*. New York: D. Appleton-Century Co., Inc., 1935. Pp. xx+230. \$2.75.
- EDMONSON, J. B., and SCHORLING, RALEIGH. *Practical Problems in Education: One Hundred Problems Designed to Supplement Courses in Secondary Education*. Bloomington, Illinois: Public School Publishing Co., 1935. Pp. 100. \$0.75.
- EULER, HARRISON LESLIE. *County Unification in Kansas*. Teachers College Contributions to Education, No. 645. New York: Teachers College, Columbia University, 1935. Pp. 92. \$1.50.
- EURICH, ALVIN C., and CARROLL, HERBERT A. *Educational Psychology*. Boston: D. C. Heath & Co., 1935. Pp. viii+436. \$2.24.
- FENDRICK, PAUL. *Visual Characteristics of Poor Readers*. Teachers College Contributions to Education, No. 656. New York: Teachers College, Columbia University, 1935. Pp. 54. \$1.25.
- FITCH, JOHN A. *Vocational Guidance in Action*. Job Analysis Series of the American Association of Social Workers, No. 5. New York: Published for the American Association of Social Workers by Columbia University Press, 1935. Pp. xviii+204. \$2.75.
- FOREST, ILSE. *The School for the Child from Two to Eight*. Boston: Ginn & Co., 1935. Pp. x+286. \$1.80.
- GATES, ARTHUR I. *Generalization and Transfer in Spelling*. New York: Teachers College, Columbia University, 1935. Pp. vi+80.

- GATES, ARTHUR I. *The Improvement of Reading: A Program of Diagnostic and Remedial Methods*. New York: Macmillan Co., 1935 (revised). Pp. xvi+668. \$2.50.
- GRAY, WILLIAM S., and LEARY, BERNICE E. *What Makes a Book Readable: With Special Reference to Adults of Limited Reading Ability—An Initial Study*. Chicago: University of Chicago Press, 1935. Pp. xviii+358. \$3.00.
- HAGBOLDT, PETER. *Language Learning: Some Reflections from Teaching Experience*. Chicago: University of Chicago Press, 1935. Pp. x+166. \$1.50.
- JENCKE, GRACE ELIZABETH. *A Study of Précis Writing as a Composition Technique*. Teachers College Contributions to Education, No. 644. New York: Teachers College, Columbia University, 1935. Pp. vi+106.
- LEÃO, A. CARNEIRO. *L'enseignement des langues vivantes: Une expérience Brésilienne*. Rio de Janeiro, Brazil: Rodrigues & C., 1934. Pp. 120.
- Materials of Instruction*. Eighth Yearbook of the Department of Supervisors and Directors of Instruction of the National Education Association. New York: Teachers College, Columbia University, 1935. Pp. xii+242.
- MORRISSETT, LLOYD N. *Letters of Recommendation: A Study of Letters of Recommendation as an Instrument in the Selection of Secondary School Teachers*. Teachers College Contributions to Education, No. 641. New York: Teachers College, Columbia University, 1935. Pp. viii+206. \$2.00.
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Educational News and Editorial Comment

NEWER OBJECTIVES IN VOCATIONAL GUIDANCE

One of the consequences of the impact of technology on our economic system has been the creation of a new world for the worker. First of all, he is faced with a rapidly shifting vocational pattern. At any time a new machine may render valueless his specific skill, throw him out of work, and force him to find a new job under new conditions. Each year fewer people are employed in manufacturing establishments and in agriculture. Each year, too, witnesses a larger number of persons employed in trade and transportation and in clerical and service occupations. Then, this shifting vocational pattern has been accompanied by significant changes within vocations. In the case of a growing number of workers, there is less and less demand for specific skills and an increased demand for trained intelligence, for sustained attention, for correct conception and quick reaction, and for an understanding of the more general scientific and technical principles basic to an industry. Moreover, an increasing percentage of workers deal more and more with people and less and less with things. Social adjustability, therefore, may be as important as the possession of skills or of technical or professional knowledge.

Obviously, changes in our economic life have raised many questions with respect to the objectives of vocational guidance. These newer objectives are discussed in a most illuminating way in a recent monograph, *Trends in Vocational Guidance*, prepared by Rex B. Cunliffe and published by Rutgers University as Number 8 in its series of Studies in Education. This monograph should be of particular interest to school superintendents and to all others who are in any way responsible for the guidance of youth. Professor Cunliffe discusses the occupational problems of the worker under three major topics: (1) occupational shifts and trends, (2) changes within the occupations, and (3) changes in the pattern of the worker's life.

The following paragraphs are informing with respect to recent occupational trends and changes within occupations.

A number of studies, local and national, have been made, dealing with both occupational group changes and changes in the importance of specific occupations. It appears that, while an increasingly greater proportion of our population is gainfully employed, there has been a relative decline in the number of workers in the productive industries. Since 1920 employment in mines and industries has ceased to expand. Despite increased productivity, the factory population has declined, and the number of farm laborers has decreased by about two million. The great increase has been among the white-collar workers on all levels, clerks, middlemen, salesmen, proprietors and officials, and personal and professional service. Trade, transportation, and clerical service have seen the greatest increases, which one finds amazing as he examines the figures [R. G. Hurlin and M. B. Givens, "Shifting Occupational Patterns," *Recent Social Trends in the United States*, chap. vi. New York: McGraw-Hill Book Co., Inc., 1933].

Bingham [Walter V. Bingham, "Abilities and Opportunities," *Occupations*, XII (February, 1934), 6-17] has made an interesting analysis which indicates more definitely the significance of these trends. He finds that during the years 1910-30, while the population was growing 33 per cent, the number engaged in primary production, processing, and transportation increased 6 per cent; trade and administration, 80 per cent; professional and personal service, 50 per cent. Breaking these groups into three ability levels, he reports an increase for artisans of 28 per cent; machine operatives and semi-skilled workers, 50 per cent; and unskilled, 21 per cent. A study of the transportation group shows that the number of workers increased 36 per cent; the number of foremen, inspectors, agents, 65 per cent. The number of laborers and porters in trade increased 29 per cent; salesmen, clerks, and other employees 70 per cent. An analysis of the administrative function shows a general increase of 44 per cent; engineers, C.P.A.'s, professional workers, 97 per cent; and clerical workers, [136] per cent. Professions

proper increased 48 per cent, semi-professions, 517 per cent, and personal service doubled. In general, the trend then seems to be from productive to distributive and service occupations. In this connection, Bingham believes "we shall see a continuing increase in the number of opportunities for work with people; serving their wants, supervising their joint efforts, getting their hearty co-operation, managing them, persuading them, instructing them, helping them in one way or another."

Although the importance of these trends can hardly be overemphasized, it should not be forgotten that 52.8 per cent of the gainfully employed are yet to be found in the productive industries. It is in these that the procedures characteristic of mass-production techniques and processes have made the greatest inroads. Forty-two per cent of the workers in agriculture are classified in the Census as laborers, and 50.48 of those in manufacturing and mechanical industries as operatives and laborers. Distinctions between many of the other occupations in this group have become highly theoretical. The same tendencies are seen in some of the other occupational groupings, for example, transportation and clerical occupations. Recall Bingham's figures on the increase in the number of machine operatives and semi-skilled workers, 50 per cent, about double the percentage of growth for artisans and unskilled. Koepke's study of the workers in thirty-three industries gives us some idea as to what we would find in manufacturing. Seventy-nine per cent of the workers were semi-skilled operatives. "The leveler in today's factories is the machine, with its control levers, its stations for placing and removing material, and its power applications" [C. A. Koepke, "A Job Analysis Survey: Its Procedures and Some of Its Results," *Occupations*, XII (June, 1934), 15-34].

The following paragraphs describe some of the fundamental changes in the life-pattern of the worker.

He has felt the effect of the new industry in the somewhat different physiological and psychological demands of the occupation. Undoubtedly in a sense he has less hard labor today, if one thinks of hard labor as heavy lifting, tugging, and hauling. To compensate for this advantage, however, in factory, office, and store, he works at an increased tempo which in itself brings a very definite strain. It also appears that skills are less and less demanded, and in the case of at least many workers, more intelligence of a kind. "We need a new type of worker at machines, a new type in the office . . . The slow-witted, lethargic worker has a smaller place; the alert, agile man or woman, with no extraordinary power of muscle but quick command of reactions, is increasingly valuable" [C. Delisle Burns, *Modern Civilization on Trial*, p. 214. New York: Macmillan Co., 1931]. "With the advent of the Power Age, the tendency toward specialized men and universal machines is gradually changing toward special, single-purpose machines and all around 'universalized' mechanics." ". . . the qualifications required of the worker in the Power Age are entirely new. Characteristics which were neglected

and even scoffed at less than a generation ago—general intelligence, good judgment and wide-awake alertness—are today of greatest value. Today we may write the labor specifications for any really modern industry in these terms: (1) sustained attention, (2) correct perception, (3) quick reaction. . . ." [W. N. Polakov, *The Power Age*, pp. 112, 115-16. New York: Covici-Friede, 1933]. "The qualities the new worker needs are alertness, responsiveness, an intelligent grasp of the operative parts: in short, he must be an all-round mechanic rather than a specialized hand" [Lewis Mumford, *Technics and Civilization*, p. 227. New York: Harcourt, Brace & Co., 1934].

The question has properly been raised as to the kind of vocational education demanded in such a world. In Minneapolis about 75 per cent of those leaving school during the junior high school years take jobs demanding training of less than a week [*The Product of the Minneapolis Public Schools*, p. 28. Report of the Superintendent of Schools to the Board of Education, January, 1931]. In the factories of Minnesota Koepke found: "Of all the operations surveyed, 22 per cent required a training time of less than half a month for their satisfactory performance; 33 per cent required from half a month to two months; 17 per cent from three to nine months; 16 per cent from ten months to two years; 8 per cent from two to four years" [Charles A. Koepke, *A Job Analysis of Manufacturing Plants in Minnesota*, p. 14. University of Minnesota Employment Stabilization Research Institute, Vol. II, No. 8. Minneapolis, Minnesota: University of Minnesota Press, 1934]. Seventy-two per cent of the operations required a training time of less than nine months; 55 per cent, a training time of less than two months. The demand may be for less skill and more intelligence, a demand for a limited number of highly trained technical workers, below the university level—for one thing, at any rate, many vocational schools are setting up comparatively high intelligence and ability hurdles as entrance requirements.

The probabilities that the wage-earner of tomorrow will work for a large organization are steadily growing. Although it seems that small establishments in numbers are holding their own, there is considerable evidence of various kinds that the number of large establishments is increasing, which makes it seem possible that an increasingly large number of workers will find their careers in an industry rather than in an occupation.

Work habits have altered. The job itself is a living thing. The nature of the work, with changes in machinery and in the organization of plant and office, will change and make new demands upon the worker. These changes, as indicated, are so rapid that the worker can hardly be sure of being asked to do tomorrow the things he has to do today. Whether it is the compositor being compelled to learn to use the linotype, the telegrapher to transfer his affections from the key and the Morse code to the teletypewriter, or the assembler given a new tool under somewhat different working conditions, responsibility for making the adjustment to the new situation is placed upon the worker. Instead of, as once, working at his own bench or desk, he tends a machine or becomes a "station"

in a continuous process. Although his work is becoming in many respects mechanized, he is faced in all cases with a complexity of human relationships which present to him infinitely more problems. The union, after its near demise, is reviving in importance, although fundamental changes may take place in its structure.

Life for the worker is characterized by occupational instability and economic insecurity. He has lost his old independence; he as an individual is a small part—a very small part—of an extremely complicated and gigantic machine; alone he is helpless and must place increasing dependence upon controls and aids supplied by the state. He may expect greater regimentation of his life and work. He must be both a specialist and a generalist, and his success, so far as he can control it, depends upon his ability to do his job well, and when that job leaves him or he leaves the job, do other jobs, however difficult and different, fully as well.

TWENTY-FIVE YEARS OF ENGLISH EDUCATION

An editorial in a recent issue of the London *Times Educational Supplement* traces the major developments in English education during the past quarter of a century. The following paragraphs are quoted from the editorial.

Since the King came to the Throne, educational developments have shown much fruitful advance from the nursery school to the university. The seeds of progress had been sown by earlier generations, first by a system of compulsory schooling, with a number of exemptions, for all children between five and fourteen, and then by the recasting of local government, which led within a year or so to the granting of powers for technical education to the new authorities. To these were added in 1902 further powers to supply, aid, and co-ordinate all forms of education, higher as well as elementary. By 1910 the new authorities had made good headway in tackling their obligations. In many instances they had surveyed the educational field and had begun to set up new primary and new secondary schools as well as municipal training colleges. Not only were there gaps in the secondary-school system, but the problem was interwoven with the need of attracting to the teaching profession well-qualified recruits who had received a good general education before entering on their training course. In 1910 the number of certificated teachers for every 1,000 children was only 19.02, the number of uncertificated teachers 8.10 per 1,000 in average attendance, and other adult teachers, 2.98 per 1,000. Today the number of certificated teachers has risen to 25.6 per 1,000 pupils, the number of uncertificated teachers has fallen to 5.8, and the figure for supplementary teachers has dwindled to 1.3 per 1,000. In the meantime the roll of secondary-school pupils has risen in a marked degree. In 1910-11 the register of boys and girls in recognized secondary schools contained 163,221 children in attendance. In October, 1933, the figure was 523,598. A quarter of a century ago, about 1,000 students from grant-earning

secondary schools proceeded to the university. In 1932-33, out of 11,813 students admitted to universities, 4,389 came from grant-aided schools. And the grant-aided schools have justified their existence abundantly by passing through their doors many students of proved capacity. In 1933, 335 scholarships and exhibitions were awarded by Colleges at Oxford and Cambridge for pupils from secondary schools in England and Wales—69.3 per cent of them to pupils who had held free places in those schools and 59.4 per cent to those who had been educated previously in public elementary schools. And the process is still going on. . . . All these figures give evidence, if evidence were needed, of the extent to which during the present reign the educational ladder has become a real highway to further education.

Both the older and the newer universities have widened the scope of their activities to meet the needs of the times. The report of the University Grants Committee illustrates the variety of the advanced work which is being undertaken by students. New universities and colleges have been opened. London will soon have a great administrative center on ten acres in Bloomsbury. Reading was incorporated in 1926, University College, Leicester, was established in 1921, and Hull in 1928. Today there are close upon 49,000 full-time students attending universities in Great Britain. . . . Nor have the older public schools stood still. They are as much sought after by parents as ever, and new schools of the same tradition have been opened, including Stowe, Camford, and Bryans-ton for boys, and Benenden for girls. The better private and preparatory schools, many of them inspected and approved by the Board of Education since 1917, still retain the confidence of parents. There is an increasing demand, however, that all such schools should be inspected and recognized by the board. As this demand grows it seems likely that poorly staffed, inefficient establishments will tend to disappear.

Technical education has made great strides since the early years of the King's reign. Figures published in 1912 show 1,280 students at work at full-time day courses; the last report of the board gives a total of 31,187. Evening classes in colleges and evening institutes have expanded greatly. Grouped courses and the development of National Certificate Schemes have led to much greater regularity of attendance and improved steadiness in work. The Adult Education movement, which in its present form began in 1903, the establishment of residential colleges for working men and women, the development of the National Library for Students, and the increased facilities for reading which have come about since the passing of the Public Libraries Act, 1919, have all augmented educational opportunity for young people throughout the country during the past twenty-five years.

The growing interest in education which is to be observed among parents of their pupils must be ascribed in considerable measure to the work of the teachers in the primary schools. Much of the teaching there has been revolutionized. By 1910 schools had already begun to recover from the old rigidity of piecemeal

grants and a fixed syllabus. By 1910 the Board of Education was impressing upon local authorities the need of reducing the size of classes to a maximum of sixty. London and some other authorities entered upon plans of school building and remodeling which aimed at a maximum of forty-four in classes for older children and of forty-eight in infants' departments. There has been considerable progress since the War. In 1920-21 there were 33,196 classes in England and Wales with fifty pupils or over. According to the latest news that number has been reduced to 6,194. Classes in senior schools are now rarely above forty. Indeed, the development of the Hadow Scheme with a break at 11+, with the opportunities afforded for more advanced work among older scholars, and the consequent improvement in classification has brought new life into the schools. The establishment of Teachers' Superannuation in 1918 and the completion of the Burnham scales of salary have removed much personal anxiety, and the removal has reacted healthily on the schools.

PART-TIME EMPLOYMENT FOR GRADUATE STUDENTS UNDER THE NATIONAL YOUTH ADMINISTRATION

The National Youth Administration is undertaking to make it possible for unemployed college graduates to pursue graduate study at the various institutions of higher learning. The following paragraphs, quoted from a recent release of the Youth Administration, describe certain of the conditions under which funds set aside for this purpose will be administered.

The following stipulations shall govern the program:

1. All institutions of college or university character which award non-professional Master's or Doctor's degrees (and which hereinafter are called universities), which desire such aid shall be included, provided they are organized and operated as institutions which are non-profit making in character, as attested by their charters and by the fact that their regular educational buildings and grounds are exempt from property taxes levied by the state and/or local community. . . .

2. The phrase "non-professional Master's and Doctor's degrees" shall be construed to include degrees based on specialization in the usual academic subjects. The final decision as to whether or not a degree conferred by any university is "non-professional" shall be made by the Education Division of the Federal Works Progress Administration. Further definition of "non-professional Master's and Doctor's degrees" will be provided in a later release.

3. Part-time employment shall be understood to include activities and research of all types, supervised by members of the faculties of universities, which take advantage of the special training and abilities of graduate students, except that no institution shall employ graduate students under this provision to displace any employee who was formerly on the pay-roll of the institution or to fill

any position which was formerly filled by a paid employee. Nor shall part-time service include the giving of any regular classroom instruction in the university.

4. Students in the first year of graduate study may receive an average of fifteen dollars per student per month and a maximum of twenty dollars to any student in any month as college aid . . . and may receive supplementary aid to the extent of not more than ten dollars a month from funds specifically allocated by the National Youth Administration for part-time aid for graduate students.

5. Students who have already completed a full year of graduate study (including post-doctoral students) are eligible for an average of not more than thirty dollars per student per month and a maximum of forty dollars to any student in any month as part-time aid. But this latter allotment shall not preclude a university from assisting such students to the extent of fifteen dollars on the average (or twenty dollars as maximum to any student) a month on the college-aid program, provided no such student shall receive total aid from National Youth Administration funds in excess of that above set forth. . . .

12. The students shall be selected on the basis of the following considerations:

a) *Need*.—Each student must be able to qualify on a basis of need for such assistance as he may receive. This assistance will actually represent the difference between his being able to continue advanced work or not.

b) *Character and ability to do graduate work*.—The students shall be of good character and, judged by the usual methods of determining ability employed by the particular university, shall possess such ability as to give assurance that they will do high-grade advanced work.

c) *Status of attendance*.—Only students carrying at least three-fourths of a normal full-time scholastic program shall be eligible for employment under these allotments.

13. The hourly rate of pay shall be such as is commonly paid by the institution for the type of service rendered.

14. No student shall be required to work more than thirty hours in any week or eight hours in any day.

HERE AND THERE AMONG THE SCHOOLS

The *Christian Science Monitor* reports that the Board of Education of Woodstock, Illinois, has decided to introduce typewriting as a part of the regular class work of all pupils in the first five grades of the elementary school. This decision grew out of an experiment conducted during the second semester of the school year 1934-35. Sixty pupils, twelve from each of the first five grades, were given instruction in the touch system of typewriting. After preliminary instruction the pupils were given practice in typewriting lessons in

reading, spelling, language, and history. This correlation of typewriting practice with other lessons, to facilitate skills in learning, is the primary objective of the typewriting course. The experiment proved so successful that the Board of Education decided to provide facilities for instruction in typewriting for all the four hundred pupils enrolled in the first five grades.

Curriculum revision continues to be one of the major interests of elementary-school teachers and principals. The recently published Third Yearbook of the Raleigh (North Carolina) Elementary Education Council is entitled *Adventures in the Field of Elementary Science*. The book represents "the result of a year's study in the field of elementary science and nature-study" on the part of the council. The first part of the yearbook "gives an account of the means used by council members to survey the resources of the community and to secure the information and materials needed in classroom activities." The second part of the yearbook presents discussions of units of work which teachers in the various grades actually employed in teaching. These units are entitled: "Animal Friends, First Grade"; "Seeds, Second Grade"; "The Aquarium, Third Grade"; "Trees, Fourth Grade"; "A Study of Insects, Fifth Grade"; "Rocks and Minerals, Sixth Grade." The yearbook contains a fairly extensive bibliography on each unit of work.

During the past four years the teachers of Wilmington, Delaware, have been working on a thoroughgoing revision of the curriculum in the social studies and language arts. A description of this work has been published by the Board of Education under the title *Co-operative Curriculum Revision*. The material is organized under five topics: the need for co-operative curriculum revision, preparation for curriculum revision, the production of new curriculums, the installation of the revised courses of study, and the outcomes of the program of co-operative curriculum revision.

The teaching and supervisory staffs of the Seattle public schools have published a volume entitled *Successful Living*. The publication describes the co-operative effort of teachers and principals to make the entire school program productive of character growth. Through this "pooling of experience" it is hoped that the teachers of the system may "become sensitive to vital opportunities and skilful in

the most delicate of the teaching arts—the cultivation of truly successful living.” Chapters are devoted to the following topics: “How School Organization Lends a Hand,” “Successful Living in the Classroom,” “The Debt to Activities,” “We Must Live with Others,” “Individual Guideposts,” “Other Agencies Contribute,” and “How Shall the Life of the School Be Tested?”

The elementary-school principals of Richmond, Indiana, have published a unique mimeographed report entitled “Organizing the School on the Basis of Its Own Community.” Underlying the report is the assumption that “every school should take into account in the organization of its program, both curricular and extra-curricular, those conditions which exist in a community and function in such manner as to become influences upon the child in determining his character or in contributing to his general educational growth.” In the report each elementary-school principal describes in some detail the physical features or situations existing in his community which might be expected to constitute pressures or influences in the life of the child.

THE IOWA CHILD WELFARE PAMPHLETS

The University of Iowa has published a number of pamphlets dealing with many of the most important phases of child development and welfare. Some of the pamphlets are based on the reports of the White House Conference on Child Health and Protection; others are from papers read at the various Iowa Conferences on Child Development and Parent Education. All these pamphlets are written in non-technical language which the layman will have no difficulty in understanding. They should prove particularly helpful in giving parents a better understanding of their children and of the purposes and processes of the modern school. Teachers, too, should find the materials informing and stimulating. The titles of the various pamphlets are as follows:

1. Is My Child Underweight?—C. H. McCloy
2. The Child and His Constitution: Where Does He Get His Health?—C. H. McCloy
3. Health Protection of the Preschool Child—M. E. Barnes, M.D.
4. Learning To Eat—Esther Leech
5. Education of the Preschool Child—Beth L. Wellman
6. Learning To Talk—Beth L. Wellman

7. Learning To Use Hands and Feet—Beth L. Wellman
8. The Exceptional Child: The Dull, the Bright, and the Specially Talented—George D. Stoddard
9. Intelligence Testing—George D. Stoddard
10. How the Child's Mind Grows—Ruth Updegraff
11. Discipline—Harold H. Anderson
12. Educating the Handicapped—Esther Van Cleave Berne
13. The House and Its Furnishings in Relation to Child Development—Ralph H. Ojemann
14. Managing the Family Income—Ralph H. Ojemann
15. School-Home Co-operation—Harold H. Anderson
16. Child Health: A State and National Dilemma—Fred Moore, M.D.
17. What the Kindergarten and Nursery School Have in Store for Parent and Child—George D. Stoddard
18. Understanding Your School-Age Child—Paul Hanly Furfey
19. The Visiting Teacher—Wilma Walker
20. Mental Hygiene and the Individual Child—George K. Pratt, M.D.
21. Sex Conduct—Newell W. Edson
22. The Quest for Emotional Honesty—Ralph P. Bridgman
23. Juvenile Delinquency: A Group Tradition—Clifford R. Shaw
24. Juvenile Delinquency: A Case History—Clifford R. Shaw
25. What Money Means to the Child—Ralph H. Ojemann
26. Bladder Control in Infancy and Early Childhood—Hjalmar Fletcher Scoe
27. Feeding the Family during a Depression—Louise L'Engle
28. Effects of Changing Economic Conditions upon Children—Karl E. Leib
29. Musical Guidance of Young Children—Harold M. Williams
30. Parents' Answers to Children's Sex Questions—Katharine Wood Hattendorf
31. What Motion Pictures Mean to the Child—George D. Stoddard
32. The Modern Child and Religion—Hedley S. Dimock
33. Basic Factors in Child-Teacher Relationships—Esther Loring Richards, M.D.
34. The Origin of Conduct Problems in School Children—Esther Loring Richards, M.D.
35. Children and the Machine Age—Floyd Dell
36. Marriage and Modern Life—Ernest R. Groves
37. Stuttering in the Preschool Child—Wendell Johnson
38. The Impact of Recent Social and Economic Changes upon the Family—Paul H. Douglas
39. What Is the New Deal Doing for the American Family?—Paul H. Douglas
40. How the Child Becomes Religious—David M. Trout
41. Guiding the Religious Development of the Child—David M. Trout
42. Character through Religious Control—David M. Trout
43. The Child in Our Educational Crisis—George F. Zook
44. Human Needs and How They Are Satisfied—William E. Blatz, M.D.
45. The Importance of Failure—William E. Blatz, M.D.

THE NATIONAL EDUCATORS MUTUAL
ASSOCIATION, INCORPORATED

The following communication has been received from Joseph P. Kennedy, who, at the time the letter was written, was chairman of the Securities and Exchange Commission.

A few days ago this commission issued a stop order suspending the registration of a security issue which a concern in Tennessee sought to sell to members of the teaching profession.

The commission has published its opinion in the case, and a copy is inclosed.

We are sending you this opinion because we feel that it would be to the benefit of teachers everywhere if cases of this kind could be brought to their attention.

The concern to which reference is made is known as the National Educators Mutual Association, Incorporated. The president of the association is described as a past president of the Tennessee State Teachers Association, and a number of other officers are described as being superintendents of schools in Tennessee. On the first page of the prospectus there is set forth a list of thirty-one "advisory directors," all residents of Tennessee and with few exceptions having designations such as "dean," "principal," or "superintendent." In its "Opinion" the Securities and Exchange Commission comments as follows on the list of "advisory directors":

Obviously, this array of names—one hopes innocently lent—was intended to give an air of respectability and educational "mutuality" to an enterprise that fortunately for the protection of the investing school teachers of Tennessee and other states sought to register under the Securities Act of 1933.

The ostensible purpose of the enterprise is set forth as follows in its prospectus:

For many years a great deal of thought has been given by the educators to the situation and the needs of the teachers for a service to them such as this association now offers. Many authorities have been consulted and no little time and expense devoted to a study of the matters involved.

It is evident to most observers that members of the teaching profession, devoting their whole time in the service to the public's interest, do not have the opportunities available to persons of other occupations to come in contact with nor study those fields for safely accumulating their individual shares in worldly goods.

Proceeding with that understanding and with the thought in mind that what an educator has as capital assets is largely education and time, converted into terms of service, which is devoted to the public's interest in exchange for a com-

pensation that, during his or her lifetime, must produce the desired financial reward. Furthermore, that the average of income derived therefrom and the accumulation of savings thereby effected are not liable to provide the desired estate, much less one that is comparable to that so gained and obtained by others engaged in other business activities.

Keeping in mind this fact, which is accepted by every authority of finance and economics, that life insurance is the first basis upon which a sizable estate can be created with certainty, by those whose means will not otherwise provide for one, this association was organized, first, to finance a Life Insurance Company as its ultimate objective, and to render service primarily for the educator's needs.

Second. To provide a means whereby savings from salary or income may be invested in a class and character of security that by its nature would encourage the ultimate of thrift in the individual over the productive period of his or her service years to the end that these savings may be invested with safety and set to work creating the largest possible secondary estate.

Third. To provide means whereby teachers may be able to borrow money to further their education, also to advance money against their salaries and to discount school salary warrants.

To that end and for that purpose, the founders developed their plans and created this corporation and will establish an advisory board of directors from among the leading educators in the states in which this association will operate. In this manner the teachers of the various states in which this association will operate will be in close touch with the directorate of the association for the benefit such contact may afford them in consulting and advisory service.

The Securities and Exchange Commission, in its "Findings and Opinion," analyzes in detail the financial operations of the National Educators Mutual Association, Incorporated, and it finds much of which it disapproves. The opinion abounds with such statements as the following: "We find it untrue and misleading." "Equally misleading is the whole contract attached to this so-called 'bond.'" "Our finding is that the particular combination of words chosen for the name of the registrant is misleading and was used primarily for the purpose of creating in the minds of the public the erroneous impression that it is affiliated with the National Education Association." "The disastrous financial history of the registrant is concealed rather than revealed by the form in which its balance sheet and profit and loss statements were submitted."

We quote the concluding paragraphs of the "Findings and Opinion" of the Securities and Exchange Commission.

The general statement of the nature of this particular enterprise contained in the prospectus . . . is obviously far from the fact. The cynically minded

might well read certain paragraphs of this statement as indicating that educators or school teachers are unused to financial transactions and thus reach the conclusion which seems to be the hope of this enterprise that they are easily duped. But it is the avowed belief of the gentlemen who conduct this enterprise that the school teachers to whom they are proposing to sell these "bonds" have little knowledge of the niceties of finance and investment. How much more reprehensible does their conduct then become in the light of such a belief! How much more important does it then devolve upon them to state frankly that they are in essence asking school teachers to put their savings in their control and for their management of these savings these school teachers are to give them more than half of the profits that may inure to the enterprise. For, in essence, in this "mutual" enterprise profits go to promoters and advisers in the ratio of approximately 60 per cent and to the investing "bondholders" in the ratio of approximately 40 per cent! No array of locally prominent names should be permitted to conceal these facts; nor, we hope, will any future prospect be left unaware of the danger of intrusting the small savings derived from school teaching in the hands of men who upon this record and by their own admissions have demonstrated untruthfulness and misfeasance in positions of trust and confidence.

A stop order in accordance with these findings and opinion, suspending the effectiveness of the registration statement, will issue.

AN AUTHOR'S REPLY TO A BOOK REVIEW

It is the policy of the *Elementary School Journal* to submit books for review to persons who seem qualified to review them. Under no circumstances do we publish reviews voluntarily submitted. It is our policy, too, to encourage free and frank criticism of a book; there is no point in having a book reviewed if the reviewer is to be restrained from saying things that are not complimentary. We recognize, of course, that in the nature of things some books may receive undeserved adverse criticism. In order that authors may receive fair treatment, the pages of the *Journal* are always open to any author who may believe that his book has been unjustly criticized or that his purposes have been misunderstood. We are glad, therefore, to publish the following communication from Richard E. Jagers with regard to the review of his book, *Administering the County School System*, which appeared in the April, 1935, number of the *Elementary School Journal*. The review was written by Oliver L. Troxel, professor of education at Colorado State Teachers College, Greeley, Colorado.

The principal fault I find in this review is that the reviewer left the impression that the book was not worth reading regardless of his statement that, "while

county-school organizations have been in existence for roughly a hundred years, the first book dealing exclusively with county-school administration has appeared."

The reviewer states that it "may hardly be described as a comprehensive treatment of the problems of administration in county school systems." He would have been correct if he had said "*all* the problems." The author selected, out of his twenty-five years of experience in working with county superintendents, what he considered to be the major problems involved in actively administering county school systems. The problems omitted fell largely in the field of supervision, while those treated fell roughly in the field of administration.

The reviewer's statement that "the treatment of the topics which are considered is elementary" is a distinct compliment, although he apparently did not so view it. Since the book deals with the problems which lay boards must face from day to day, definite effort was made to make each statement in simple language and to use terms commonly used in dealing with rural problems.

The following statement may be classed definitely in the category of fault-finding: "To outsiders this information holds only an academic interest, since the picture drawn of Kentucky school conditions is hardly one which others would wish to reproduce in their own states." While this reference scarcely deserves an answer, it may be timely to say that Kentucky conditions were selected to represent the median type of organization in states where the county is largely the unit of local school control. The reviewer apparently missed the point entirely. No attempt was made to "sell" Kentucky conditions to other states in the same manner that an enthusiast would "sell" Pike's Peak to a gullible tourist.

The statement that "the first two chapters of the book . . . contain many gross inaccuracies" is unjust and might be resented. The reviewer refutes his own charge, however, when he says: "The following statements concerning this type of organization are misleading, *at least as far as many states with this organization are concerned*" [italics mine].

The reviewer's statement apparently grew out of a misunderstanding on his part of the classification of county-school organizations made by the author. Anyone familiar with rural-school organizations in the United States knows that, generally, they fall into two roughly defined groups, namely, the group in which the county is, in the main, the local unit and the group in which the county is, in the main, the intermediate unit. No two states falling in either group organize in exactly the same way! This fact is well known. It should not be necessary to stop and point out this fact to educational adults. Those at all familiar with conditions know that there are as many variations within each group as there are states falling within each general classification. One-third of the space of the review dealt with a part of the book to which the author paid only passing notice. The emphasis in the book was placed on "active administration" and not on "general status" of county school systems.

The reviewer stated, in effect, that one chapter is a good one. He took time also to say that "the book is well printed and attractive in appearance."

"As a whole," he says, "the book is not well organized nor well written. Many examples of poor, or at least uninspired, English could be cited." The author of the book has nothing to say on this point except that he lays no claim to divine inspiration. He made no attempt to be bombastic but dealt with everyday problems in everyday language. He is consoled by the fact that the book at least "inspired" a two-page review in one of the world's outstanding educational magazines.

WHO'S WHO IN THIS ISSUE

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A STUDY OF THE RELATION OF SUPPLY OF TEACHERS TO DEMAND FOR TEACHERS

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PROCEDURE IN SECURING DATA

Since the advent of the depression much has been said about an alleged oversupply of teachers. There seems every reason to believe that many of the statements which have been made have been based on inadequate and even incorrect data.

During the scholastic year 1933-34 the Tennessee Department of Education was particularly active in collecting information concerning the public schools of that state. One of the problems attacked was the question of the relation of the supply of teachers to the demand for teachers. The state commissioner of education, Walter D. Cocking, appointed a committee of three, of which the writer was a member, to assist and collaborate with officials of the state department in conducting the proposed investigation. This article reports the procedures followed and certain significant findings obtained in the investigation, which extended through a period of several months.

The steps employed in the inquiry concerning the available supply of teachers will be briefly described. First, lists of all the teachers who taught in the public schools of Tennessee in 1933-34 were prepared by the elementary-school supervisor and the high-school supervisor. Second, an entirely new set of records was prepared for the office of the supervisor of certification. Previously there had been a card in the files for *each certificate* which had been issued since records were kept in the state department; in the new files a card was prepared for *each person* legally certificated to teach in the public schools in 1933-34. Cards were not prepared for persons who no longer held valid certificates. Furthermore, all the certificates held by a given person were listed on one card. Thus, it was possible to ascertain the number of *persons* holding certificates, while from the

old files it was only possible to find out the number of *certificates* which had been issued. Third, the cards of all employed teachers were marked on the new records in the office of the supervisor of certification. Fourth, county lists were made of all teachers who, according to available records, were unemployed in 1933-34. These lists of supposedly unemployed teachers were sent to county, and in some cases to city, superintendents with the request that information be supplied on the following questions: Was a given person dead? Was he teaching even though no record to that effect had reached the state department? Was he definitely lost to the profession for any reason? Was he in reality an unemployed teacher who desired a teaching position and had been unable to secure one? Practically every superintendent co-operated fully in the study, although in a few cases it was necessary for an investigator to make a trip in order to secure the desired information. Naturally, some persons were listed concerning whom superintendents were not able to find any information, but, on the whole, remarkably complete returns were finally secured.

NUMBER OF ELEMENTARY-SCHOOL TEACHERS

In 1933-34 the number of elementary certificates in force was 24,675, as is shown in Table I. After adding the number of persons who were teaching without certificates and subtracting the number of persons who, according to the superintendents' reports, were lost to the profession and the persons who held administrative positions in 1933-34, the total number of available elementary-school teachers was reduced to 23,603.

According to the available records, 15,051 persons were employed in 1933-34 in elementary-school teaching positions in Tennessee. If all the persons legally certificated are regarded as qualified teachers, then there was a surplus of 8,552 elementary-school teachers in 1933-34. However, if the available supply is studied in terms of more recent trends, an entirely different picture appears. The National Survey of the Education of Teachers recommends the adoption of the four-year standard as the minimum for all teachers except possibly rural teachers where an intermediate position of two or three years may be temporarily set up.² If two years of college work is ac-

² National Survey of the Education of Teachers, Vol. III (read in proof).

cepted as the minimum requirement, then there was a shortage of 5,353 qualified elementary-school teachers in Tennessee in 1933-34 (only 9,698 persons held permanent certificates based on a minimum of two years in college and 15,051 teachers were employed). If four years of college work is accepted as the minimum requirement, then Tennessee had a shortage of 12,683 qualified elementary-school

TABLE I
NUMBER OF ELEMENTARY-SCHOOL TEACHERS AVAILABLE
IN TENNESSEE IN 1933-34

	Number of Persons
Elementary-school certificates in force:	
Permanent professional (requires two years of college).....	9,698
Four-year professional (requires one year of college)	8,860
One-year professional (requires one quarter of college).....	722
Permanent examination.....	3,583
Four-year examination.....	1,149
Two-year examination.....	530
Permits (issued to persons not otherwise qualified) ..	133
Total.....	24,675
Teachers without certificates in cities with populations of more than 7,500.....	980
Gross supply of elementary-school teachers.....	25,655
Less:	
Persons lost to the profession.....	1,800
Administrators holding certificates.....	252
Persons available for elementary-school teaching.....	23,603

teachers in 1933-34, for only 2,368 of the certificated teachers had four years of college training.

NUMBER OF HIGH-SCHOOL TEACHERS

The data in Table II indicate that 9,382 persons were available as high-school teachers in 1933-34. There were in 1933-34, 3,341 persons employed in high-school teaching positions in Tennessee. If the 9,382 persons eligible for high-school teaching positions are regarded as qualified teachers, then there was a surplus of 6,041 high-school teachers in 1933-34. However, if the available supply of

teachers is studied in the light of recent trends in teacher education, a different picture is secured. For years California has required five years of college training as the minimum training for a high-school teacher. The National Survey of the Education of Teachers recommends immediate gradual extension of the period of training of secondary teachers to five years. Of the gross supply of 10,209 high-school teachers in Tennessee, only 576 had over four years of college

TABLE II
NUMBER OF HIGH-SCHOOL TEACHERS AVAILABLE
IN TENNESSEE IN 1933-34

	Number of Persons
High-school certificates in force:	
Permanent professional (requires minimum of four years of college).....	7,231
Four-year professional (requires two years of college).....	402
Permanent examination.....	1,072
Two-year examination.....	7
Four-year professional issued under law of 1913....	177
Five-year professional.....	1,059
Total.....	9,948
Teachers without certificates in cities with populations of more than 7,500.....	261
Gross supply of high-school teachers.....	10,209
Less:	
Persons lost to the profession.....	827
Persons available for high-school teaching.....	9,382

training; 7,370 had four years; 168, three years; 332, two years; 45, one year; and 1,718 no college training. It is evident that only a limited number of Tennessee teachers would be eligible to teach in high school in California. Only 576 have had over four years of college training, and the number who have had five years is of course smaller. If Tennessee continues to regard four years of college training as adequate preparation for a high-school teacher, then she has approximately five qualified high-school teachers for every two high-school teaching positions. If, however, Tennessee elects to join the group of progressive states which require five years of college training for high-school teaching positions, then she has at most only a few hundred qualified teachers for her secondary schools.

FAILURE TO USE BEST TEACHERS

Another phase of the relation of supply to demand deserves consideration. Is Tennessee demanding the best that she has available in supplying her need for teachers? The evidence is clear that in many cases she is not. Attention has already been called to the fact that in 1933-34, 9,698 elementary-school teachers held permanent professional certificates based on a minimum of two years in college, but the record shows that only 6,092 of that group were employed in 1933-34. That is, 3,606 of those with the best qualifications for elementary-school teaching were denied employment, while the positions were given to others with less training.

INCREASE IN ENROLMENT AND DEMAND FOR TEACHERS

In the study of the question of demand for teachers, there are a few further facts to which attention might be called. The 1930 Census shows that Tennessee stood forty-second among the states in the percentage of the population between the ages of seven and twenty, inclusive, who were attending school. In 1931-32 Tennessee ranked forty-fourth in the percentage of pupils enrolled who were enrolled in the secondary grades.¹ These figures show clearly that there was room for improvement. Available evidence shows that improvement has been made. For instance, there was an increase in public high school attendance from 69,691 in 1929-30² to 79,164 in 1931-32.³ If this improvement in school attendance continues until Tennessee takes her place among the leading states in the Union educationally, it will undoubtedly mean that more teachers will be required for the public schools.

NUMBER OF INEXPERIENCED TEACHERS EMPLOYED

Another approach in studying the relation of the supply of teachers to the demand for teachers is to compare the number of new inexperienced teachers employed in a given year with the number of persons without experience who desire employment. The best information available indicates that about fifteen hundred new inex-

¹ *Biennial Survey of Education in the United States: 1930-32*, Chap. i, Table 10A. United States Office of Education Bulletin No. 2, 1933.

² *Biennial Survey of Education in the United States: 1929-30*, Vol. II, Chap. ii, Table 10. United States Office of Education Bulletin No. 20, 1931.

³ *Biennial Survey of Education in the United States: 1930-32*, Chap. i, Table 10. United States Office of Education Bulletin No. 2, 1933.

perienced teachers were employed in the public schools of Tennessee in 1933-34—slightly less than fourteen hundred in the elementary schools and slightly more than one hundred in the high schools. An indication of the number of new recruits desiring to enter the profession is given by the number of certificates issued yearly to persons who had not been previously certificated. The total number of elementary-school certificates issued by the Tennessee Division of Certification during the period from January 1, 1933, to January 1,

TABLE III

NUMBER OF TEACHING CERTIFICATES ISSUED IN TENNESSEE FROM JANUARY 1, 1933, TO JANUARY 1, 1934, AND ESTIMATED NUMBER ISSUED TO PERSONS WHO HAD NEVER HELD CERTIFICATES

Type of Certificate	Number of Certificates	Estimated Num- ber of First Certificates
Elementary-school certificates:		
Permanent professional.....	1,851	1,573
Four-year professional.....	1,307	1,255
One-year professional.....	324	324
Examination..	285	185
Total.....	3,767	3,337
High-school certificates:		
Permanent professional.....	857	771
Four-year professional.....	93	93
Four-year professional issued under law of 1913.....	9	0
Examination.....	71	63
Total.....	1,030	927

1934, is shown in Table III. A large sampling of the certificates issued in 1933 was analyzed by the director of research and the director of certification in the State Department of Education. Based on this analysis an official estimate was made of the number of certificates of the various kinds issued to persons who had not previously held certificates. These estimates are also shown in Table III. When the number of inexperienced teachers who were employed in 1933-34 is compared with the official estimate of the number of persons never before certificated who secured certificates in 1933, it appears that approximately two and a half times as many elementary-school teachers and nine times as many high-school teachers were certificated as were able to secure teaching positions.

TEACHER-TRAINING STUDENTS IN COLLEGES

A further indication of the number of persons who were interesting themselves in the profession of teaching is provided by data which were secured concerning the amount of teacher preparation which was given in Tennessee colleges in 1933-34. The writer visited each of the thirty-seven colleges in the state which give professional training and secured detailed information concerning the course offerings and student enrolments in education. It was found that the total number of student enrolments in education courses in Tennessee colleges during the year 1933-34 was 19,896 and that the total number of student-years taken (a "student-year" being arbitrarily defined as nine quarter hours) was 7,272.

CONCLUSIONS

Certain generalizations seem to be indicated by the findings of this study of the relation of the supply of teachers to the demand for teachers in the state of Tennessee. In the first place, whether one concludes that there is or is not an oversupply of adequately prepared teachers in the state depends on one's definition of what constitutes adequate preparation for teaching. One who is perfectly satisfied with the present legal requirements for certification in the state is in position to say that there are almost five elementary-school teachers for every three elementary-school teaching positions and five high-school teachers for every two high-school teaching positions. If, however, the available supply of teachers is studied in the light of recent trends in teacher education, a definite shortage of adequately prepared teachers is indicated.

While there would almost certainly be no disposition to invalidate certificates now in force, data presented in this report indicate clearly that the state of Tennessee is in position to raise materially her future requirements for certification. The entire number of inexperienced teachers who secured elementary-school positions was considerably less than the number of persons who obtained permanent elementary certificates. The number who received high-school positions was scarcely more than a ninth of the number who obtained permanent high-school certificates. Apparently, the number of students who were pursuing courses in education in the colleges of

Tennessee in 1933-34 was about five times the number of new recruits to the profession who are employed annually.

If the number of elementary-school teachers with two years of college training and the number of high-school teachers with four years of college training who are certificated each year is greater than the demand for new teachers, then the state need no longer issue certificates based on less training. Tennessee is in position to discontinue her examination certificate for elementary-school teachers and her professional elementary-school certificates based on one quarter in college and one year in college, respectively.

She is in position to discontinue the high-school professional certificate based on two years of college training. She can also discontinue her examination certificate for high-school teachers, although it would probably be wise to retain the method of examination as a means of certifying teachers in individual subjects. Retention of this form of examination certificate will enable teachers to qualify in special subjects by private study—a situation which will act as a stimulus to continued growth among high-school teachers and obviate the unwise restriction that teachers may not give instruction in a subject in which they have not specialized in college.

It appears that far more students are taking courses in education in Tennessee colleges than can ever hope to secure teaching positions in the state. This situation can hardly be considered wholesome. Perhaps a more rigid selection of students who are preparing to teach is indicated. It is also probable that renewed emphasis should be placed on the importance of the academic preparation of a teacher. Professional courses in education should probably be eliminated from curriculums for the junior-college years, and the number of such courses which may be taken by an undergraduate should be limited.

It is hoped that the findings reported in this study will prove of definite value to the friends of public education in Tennessee and that the procedures which have been followed in the investigation will prove suggestive to the general reader who is interested in the problem of the relation of the supply of teachers to the demand for teachers in any given area.

THE CURRENT-EXPERIENCE METHOD IN BEGINNING READING

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In her excellent historical account of reading instruction in America,¹ Smith designates as "the experience method" the approach to reading now being advocated by many leading experts in primary education. The underlying theory is that, in an integrated activity program, learning to read takes place largely in a natural, incidental way as reading is needed in relation to project activities which furnish enjoyable and profitable experiences and pleasant and interesting associations. Smith points out that this method of teaching reading is rapidly gaining a foothold in this country. She states that "the newer philosophies and psychologies are calling for a more functional teaching of reading, a type of instruction in which reading is taught largely as it enters into or flows out of children's interests and activities,"² and she predicts that the basic set of readers will eventually disappear.

The fact is that there is abundant evidence in research studies today to indicate that the current methods of teaching beginning reading are producing non-readers and seriously retarded readers in such numbers as to cause real concern to those who are willing to look facts in the face and are not willing to climb on the band wagon of a popular theory in the face of the pitfalls revealed by a comprehensive knowledge of the causes of failures in reading.

The subject requires a brief review of the recent genesis of certain current practices contributing to reading retardation. As recently as ten years ago the dominant theory and practice of beginning reading was the literary-memorization method described in great

¹ Nila Banton Smith, *American Reading Instruction*, pp. 229-63. Newark, New Jersey: Silver, Burdett & Co., 1934.

² *Ibid.*, p. 265.

detail by Parker and Temple.¹ Under this plan the folk tale was told to the children, retold and dramatized by the children, memorized by them, and read from a wall-chart duplicate of the story in the primer before it was read in the book. This plan provided considerable joy in beginning reading for both teacher and children. It was developed to solve the difficulties incident to the reading of a folk tale in early book reading. This theory of using classical literature as the material for beginning book reading was so dominant fifteen years ago that practically all primers were of that type. Today no one advocates the use of that type of beginning book in reading.

The result of the literary-memorization method was that many children acquired an over-dependence on context clues, became phenomenal guessers, and failed to learn words. Many teachers acquired the idea that children could learn to read without learning words. These results and the results of certain current practices directly derived from the literary-memorization method, in my judgment, have contributed in no small measure to the unnecessarily large number of children seriously retarded in reading.

Gradually the type of primer based on experiences common to young children supplanted the literary primers. However, memory reading in the early part of the primer continued as a result of the use of wall-chart reproductions of the early primer stories, and publishers found that the type of chart material which could be most easily sold was the chart reproduction of the early part of the beginning book. Such chart material was welcomed by teachers because of the difficulty of primers based on children's play experiences, as, for example, the primer of the widely-used *Child-Story Readers*.²

The current-experience method in beginning reading includes much reading of co-operatively formulated charts based on the children's immediate activities and experiences. The plan necessarily involves the use of an extensive vocabulary and difficult units of reading material. The inevitable result is that memory reading is

¹ Samuel Chester Parker and Alice Temple, *Unified Kindergarten and First-Grade Teaching*. Boston: Ginn & Co., 1925.

² Frank N. Freeman, Grace E. Storm, Eleanor M. Johnson, and W. C. French, *Child-Story Readers*. Chicago: Lyons & Carnahan, 1927.

fostered. So far, the published plans for this type of approach make no provision for sufficient repetition of a minimum basic vocabulary in meaningful reading to result in word learning. To bridge this gap, some teachers have the children do a great deal of matching of word and phrase cards to the words and phrases in the chart unit, following the technique of the nursery-rhyme and folk-tale method, and they give isolated practice on word recognition. These supplementary devices are, of course, in violation of the theory of the experience method.

The point is that the experience method in beginning reading involves content which is too difficult and a vocabulary which is too extensive to give successful results, except with a certain percentage of six-year-old children of normal and superior intelligence who readily learn to read under any method or with no method. The real test comes in the use of the method with the children who experience difficulties in learning to read. With these children it is necessary to use carefully constructed reading materials that obtain a maximum amount of repetition of a minimum easy vocabulary in a variety of meaningful reading situations especially organized to promote facility in word recognition.

There are important advantages in functional reading and in reading based on immediate firsthand experiences, but the advocates of the experience or activity method as a complete and adequate plan appear not to take into account its limitations. In none of the published plans and accounts of the reading activities in particular schools using the experience method, are found provisions for the varying needs of the children in learning to read. The fact is that this method does not lend itself to the varying rates at which six- and seven-year-old children learn to read.

There is a mass of scientific data to show that six- or seven-year-old children vary greatly in mental maturity, in ability to perceive likenesses and differences in word forms, in visual fusion¹ (seeing singly with two eyes), and in other determining factors in learning to read. In an integrated program of reading related to large project units of activity participated in by the whole class, there is little

¹ Blake Crider, "Certain Visual Functions in Relation to Reading Disabilities," *Elementary School Journal*, XXXV (December, 1934), 295-97.

opportunity to adapt the reading instruction to the varying needs of the children. The evidence is clear that the children in almost any beginning first-grade class will vary greatly in reading achievement by the end of a half-year or a year, and the same is true of classes in the second, third, and fourth grades. A class of thirty to forty children will nearly always have three distinct levels of achievement. Each of the three groups needs reading materials of a particular degree of difficulty. Just how does the experience method provide reading experiences and training for these widely varying needs? I have been unable to find the answer in any account of the use of this method or in any suggested plans in manuals or other books proposing the experience method.

The advocates of the experience method or the plan of integrated reading say that the children are learning to read in schools putting the theory into practice. I have seen no scientific studies presenting data to show that the plan solves the reading problem in a school representative of the average American community, but I know of some schools where the plan has been tried with unsatisfactory results.

One study has been published which, at least, indicates that the activity program does not solve the problem of first-grade reading. Lee¹ made a survey of achievement in first-grade reading in a large number of centers in California and produced data indicating that the schools giving the most emphasis to project activities made the poorest showing in reading achievement. As Lee appropriately points out, the results do not mean that schools should not use activity projects, but the study raises grave doubt that the experience or activity method yields satisfactory results in first-grade reading.

All evidence appears to show that learning to read is such a complex process that a considerable portion of the children cannot make progress commensurate with their mental growth under the current-experience method, in which the reading content is closely related to, and grows out of, immediate firsthand experiences and project activities.

¹ J. Murray Lee, "Reading Achievements in First-Grade Activity Programs," *Elementary School Journal*, XXXIII (February, 1933), 447-51.

Furthermore, why should the child's opportunity for reading be restricted to that integrally related to other school activities? Group recreative reading of simple interesting stories in an attractive book, with a carefully controlled vocabulary that increases gradually, is surely a profitable and enjoyable activity regardless of a lack of integration with large activity units. Wouldn't the lives of us adults be a bore if all our activities during the day or the week, including our reading, had to be unified or integrated in some way?

With the attractive and scientifically constructed commercial materials now available in the form of preparatory chart and workbook material and easy interesting beginning books, it is easy to make the reading activities highly interesting, enjoyable, purposeful, and distinctly useful in extending and enriching experience even though they may have no relation whatever to constructional project activities. In my judgment, a reading program confined to improvised reading materials related to other activities will be just as narrow and inadequate as was the reading program of fifteen years ago which utilized only classical literature. Furthermore, the average teacher does not have the technological knowledge, the resourcefulness, and the time required to produce the materials needed.

Study of methods in beginning reading shows that they are too often extreme in one direction or the other. Many schools are now in danger of going to a new extreme in primary reading which will lead to a narrow program; some, in fact, are already there.

Project activities involving pupil purposing, planning, co-operating, and creating are an invaluable part of primary education. Nevertheless, the theory that all the reading activities must be related to, and grow out of, these activities is psychologically unsound, unduly restricts the program in reading, and in practice fails to provide adequately for the instructional needs of many children. Incidental, correlated, and integrated reading has distinct and unique values, but it should parallel rather than supplant a systematic and sequential plan in beginning reading.

A COMPARATIVE STUDY OF ORPHANAGE AND NON-ORPHANAGE CHILDREN

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Not infrequently teachers and parents assume that the presence of any large number of children housed in an orphanage is detrimental to the school in which these children are enrolled. They think that the orphanage children are more likely to be dullards, to be badly retarded, or to be deficient in social background than are the pupils coming from normal homes. The administrator compelled to deal with such a situation may have difficulty in satisfying his patrons.

In one of the elementary schools of Syracuse, New York, were enrolled a large number of children from the Onondaga County Orphanage, and the parents and the teachers believed that the school could accomplish better results without the orphanage pupils. That feeling gave rise to the study the results of which are given in this article.

A study was first made of the chronological age-grade classification of the pupils of the elementary school affected. One and a half years was considered the normal age range for each half-grade. Table I shows that the orphanage children as a group were more retarded than the other pupils, although there was significant overlapping.

A check was then made of the progress in this school system of all children whose records were complete from the first to the seventh grade, inclusive. One year in a grade was considered normal progress. Table I shows that approximately the same percentage of both groups had made normal progress but that the percentage of non-orphanage children making rapid progress was larger than the corresponding percentage of orphan children, whereas the percentage of orphanage children making slow progress was greater than the percentage of non-orphanage pupils.

In the study of the differences in mental ages and intelligent quotients of the two groups, the Otis Group Intelligence Scale was used. Table II summarizes by grade groups the data thus secured on mental age and on intelligence quotient.

In every half-grade, except the low-seventh, the median mental age of the non-orphanage pupils was higher than that of the orphanage children, while in ten of the fourteen grade groups the probable

TABLE I
PERCENTAGE DISTRIBUTION OF NON-ORPHANAGE AND ORPHANAGE
CHILDREN ATTENDING THE SAME SCHOOL ACCORDING TO
AGE-GRADE CLASSIFICATION AND SCHOOL PROGRESS

	Percentage of Non- Orphans	Percentage of Orphans	Percentage of Whole School
Age-grade classification:			
Over-age for grade.....	6	35	14
Normal age for grade.....	75	60	71
Under-age for grade.....	19	5	15
Total.....	100	100	100
School progress (113 orphans, 426 non- orphans):			
Pupils making slow progress.....	6	17	8
Pupils making normal progress.....	80	79	80
Pupils making rapid progress.....	14	4	12
Total.....	100	100	100

error was larger for the non-orphans. The overlapping in mental age was, if anything, more significant than the difference.

The median intelligence quotient of each of the non-orphanage groups excelled the median intelligence quotient of the corresponding orphanage group. The median intelligence quotient for the latter groups fell below 95 but once, and in half the grade groups equaled or exceeded 100. The significance lies not so much in the lower median intelligence quotients of the orphanage children as in the consistently high medians of the non-orphanage children. It should be explained at this point that the school and the orphanage are located in a residential section of the city inhabited by a group rather highly favored from a socio-economic point of view. The orphanage chil-

dren, in the main, are drawn from groups less favorably situated. In eight half-grades the probable error of the intelligence quotient was larger for the non-orphanage groups than for the orphanage groups.

In the comparison of the achievement of the orphanage and the non-orphanage children, the Gates Silent Reading Test, Primary Series, was administered in the second grade, and the Stanford

TABLE II
MENTAL AGES AND INTELLIGENCE QUOTIENTS OF NON-ORPHANAGE AND ORPHANAGE CHILDREN ATTENDING THE SAME SCHOOL

GRADE	NUMBER OF CASES		MEDIAN MENTAL AGE		MEDIAN INTELLIGENCE QUOTIENT	
	Non-Orphans	Orphans	Non-Orphans	Orphans	Non-Orphans	Orphans
Low-first	35	16	6.4±0.6	6.1±0.3	101.4±10.5	92.5±6.9
High-first	44	12	7.6±0.7	7.1±0.7	109.4±12.0	95.0±10.0
Low-second	23	16	7.9±0.5	7.8±0.4	107.5±7.8	98.8±10.0
High-second	45	23	9.5±0.5	8.8±0.5	117.1±6.3	100.8±9.2
Low-third	24	12	10.1±0.8	9.4±0.5	120.0±11.3	100.0±6.3
High-third	34	9	10.3±0.6	9.4±0.7	112.8±8.6	97.5±8.3
Low-fourth	30	15	11.5±0.9	9.8±0.5	114.3±5.8	98.8±6.8
High-fourth	30	9	11.0±1.1	9.9±0.8	105.0±5.8	95.8±4.5
Low-fifth	28	13	12.8±0.8	11.0±0.7	112.5±4.5	97.5±5.0
High-fifth	25	10	13.0±1.2	11.5±0.5	110.7±5.0	100.0±4.1
Low-sixth	26	14	13.0±2.1	12.1±1.0	108.3±7.4	100.0±5.3
High-sixth	38	9	14.1±1.4	13.9±2.4	112.5±6.7	102.5±9.1
Low-seventh	22	13	14.8±1.8	14.8±0.4	108.6±5.1	102.5±4.9
High-seventh	22	9	17.3±1.4	15.1±1.0	116.0±4.3	104.2±4.4

Achievement Test, Primary and Advanced Examinations, was given in the low-third to the high-seventh grades, inclusive. The median composite scores on these examinations are shown in Table III. In every group the median achievement of the non-orphanage group was higher than that of the orphanage group. The probable error was greater for the non-orphanage children in six of the groups. The overlapping was apparently more significant than the difference.

Still another attack was made on the problem. Thirty-five orphanage children were discovered who could be matched with an equal number of non-orphanage children with respect to intelligence

quotient, mental age, and chronological age. In no case was a greater difference than five points in intelligence quotient, three months in mental age, and three months in chronological age permitted. Sex was not considered because a comparison of the achievement of all boys and girls in the low-fourth to the high-seventh grade showed no significant sex differences. Table IV shows the comparative achieve-

TABLE III

ACHIEVEMENT OF NON-ORPHANAGE AND ORPHANAGE CHILDREN IN THE SAME SCHOOL AS SHOWN BY COMPOSITE SCORES ON GATES SILENT READING TEST AND STANFORD ACHIEVEMENT TEST*

GRADE	NUMBER OF CASES		MEDIAN SCORE	
	Non-Orphans	Orphans	Non-Orphans	Orphans
Low-second.....	23	16	93.8±6.0	83.3±3.5
High-second.....	45	23	106.6±2.0	99.5±6.9
Low-third.....	24	12	24.0±4.4	18.0±3.0
High-third.....	34	9	26.5±3.5	23.1±4.8
Low-fourth.....	30	15	58.8±8.8	53.3±9.5
High-fourth.....	30	9	62.5±5.4	53.2±1.5
Low-fifth.....	28	13	73.5±3.6	63.9±5.4
High-fifth.....	25	10	74.3±8.2	70.8±6.0
Low-sixth.....	26	14	80.3±6.9	76.1±9.6
High-sixth.....	38	9	90.3±6.3	81.9±7.8
Low-seventh.....	22	13	88.6±5.9	81.5±3.8
High-seventh.....	22	9	96.5±4.1	91.0±3.7

* The Gates Silent Reading Test was used in the second grade and the Stanford Achievement Test, Primary and Advanced Examinations, in the other grades.

ment of the thirty-five pairs on the Stanford Achievement Test. (In some cases the record was incomplete.)

If the rather rigid test of a critical ratio of 2.50 is applied as a test of the significance of the difference, not a single difference was significant, although on every test the mean score of the non-orphanage children was superior to that of the orphanage children. The cumulative effect is, however, fairly indicative of a general advantage possessed by the non-orphans. The largest differences were found in the tests on word meaning, language usage, literature, history and civics, geography, physiology and hygiene, and arithmetic reasoning. In drill subjects, such as arithmetic computation and spelling, the differences were smaller. These findings would seem to indicate that

the general background of the orphanage children lacked some of the elements present in the background of the non-orphanage children attending this particular school.

A study was made to determine the effect that length of time spent in the orphanage had on the achievement of the pupils. If residence in the orphanage was itself a contributing factor, there should be

TABLE IV

COMPARISON OF SCORES OF MATCHED PAIRS OF ORPHANAGE AND NON-ORPHANAGE CHILDREN ON COMPONENT PARTS OF THE STANFORD ACHIEVEMENT TEST, ADVANCED EXAMINATION

TEST	NUMBER OF PAIRS	SCORE OF NON-ORPHANS		SCORE OF ORPHANS		DIFFERENCE OF MEANS	STANDARD DEVIATION OF DIFFERENCE	CRITICAL RATIO
		Mean	Standard Deviation of Mean	Mean	Standard Deviation of Mean			
Paragraph meaning.....	34	78.6	3.12	76.8	2.69	1.8	4.1	0.44
Word meaning.....	35	85.3	3.10	81.0	3.04	4.3	4.3	1.00
Spelling.....	35	75.3	2.89	73.3	2.46	2.0	3.8	0.53
Language usage.....	35	84.7	3.61	72.9	3.83	11.8	5.3	2.23
Literature.....	35	81.7	3.22	71.9	3.39	9.8	4.7	2.09
History and civics.....	34	79.2	4.24	71.1	4.61	8.1	6.3	1.29
Geography.....	34	92.3	4.62	86.3	4.77	6.0	6.6	0.91
Physiology and hygiene...	34	78.4	2.66	70.3	2.90	8.1	3.9	2.08
Arithmetic reasoning.....	34	79.3	2.90	75.1	3.31	4.2	4.4	0.95
Arithmetic computation..	34	80.7	2.98	79.0	2.85	1.7	4.1	0.41
Composite score.....	34	80.9	2.16	75.6	2.69	5.3	3.4	1.56

some relation between the length of residence therein and achievement. Time of residence was defined as the number of days spent in the orphanage up to the date of giving the test, the range being from 40 days to 3,255 days. All the orphans in the low-third to the high-seventh grade, inclusive, whose records were known in each of the variables were studied. The correlation between the time spent in orphanages and achievement, as measured by the Stanford Achievement Test, was .145; between intelligence quotient and achievement, .20; and between intelligence quotient and length of residence, -.113. The correlation between achievement and time spent in the orphanage was then computed with intelligence quotient held constant.

The correlation was only .22, so low that it can safely be inferred that such differences as existed may be referred to other factors than mere length of residence.

The conclusion, then, is that the differences thought to exist between the orphanage and the non-orphanage children were not so great as alleged. There is evidence, however, that some differences existed between equated groups of orphans and non-orphans. The writer is inclined to attribute these differences to the inferior socio-economic status of the orphanage group. In any event, the presence in a school of children from an orphanage presents a real problem for the administrator, particularly if the school affected is located in a superior residential section of a city.

ORAL DRILL VERSUS GRAMMAR STUDY

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Progressive educators frequently state that oral drill on a specific English error is more sound in principle than is the study of the grammatical basis for the error, but teaching practice holds tenaciously to the grammatical approach. Can this paradox be another case where a sound theory will not work in practice? Or is there something wrong with the theory? Can it be that, in spite of all our supposed applications of educational psychology to English-teaching, we have made an error somewhere? If the grammatical approach is better, let us find it out and continue using it without apologies. If not, let us face the facts and revise our procedures accordingly.

When any new procedure is compared with an old one, the burden of the proof rests on the new. Furthermore, the new has to prove its merits under handicaps because it lacks the momentum and the wisdom that come from extensive use and practice. It is entirely possible that in a controlled experiment the new may show an inferiority of measured results even though it is actually better than the old, the difference in merit being more than offset by the crudeness of the method by which the new is used.

In the study reported in this article the two approaches to the correction of English errors were compared in two seventh-grade classes in the Emerson Junior High School, Pomona, California, by means of a rotation experiment. Methods used with sixty pupils in two closely similar groups were rotated. Each group learned a lesson by the oral method and then a lesson by the grammar method, alternating methods until eight lessons in all had been studied. Each pupil was tested before and after the teaching, and progress was measured with respect to each of eight English errors. Thus,

there were 480 initial-test and 480 final-test measurements. The following errors were selected for study:

1. Double subject (The man, he ——).
2. Double negative (didn't have no ——).
3. Agreement of adjective and noun (these kind).
4. "Like" and "as" used as conjunctions and prepositions.
5. Predicate nominative used in objective case (It's me).
6. Agreement of subject and verb (He don't).
7. Confusion of transitive and intransitive verbs (lie, lay).
8. Objective pronouns as subjects and nominative pronouns as objects of prepositions (Us boys went; for John and I).

The grammatical approach to the correction of these errors, which covered several days, was as follows: The pretest on an error was administered, and then an explanation of the grammatical principle was given. The pupils learned any rules that applied to the error, wrote original sentences embodying the grammatical principle, and engaged in class discussion of these sentences. A general review of the rule of grammar was given, and the final test to determine progress was administered after the series of lessons.

The procedure with the oral-drill approach consumed the same number of days as was used for the grammatical approach. The following steps were taken: The pretest was first given and was followed by an explanation of the error which was to be studied. Mimeographed copies of drill sheets, made up by the teacher, were given to the children. In these drills the correct forms were used in sentences of varied types. The sentences were reasonably short in order that there might be no waste of time on nonessentials. Attention was centered on the issue in each sentence, and the class repeated each sentence five times in concert. Pupil leaders were used to conduct the drill and were changed often. Then pupils wrote original sentences, some of which were copied on the blackboard and discussed by the class, but no mention was made of the grammatical rules involved. The drill sheets were reviewed, and the final test to measure progress was given on the day following the review. A few sample sentences, taken from the drill sheets on the double negative, are:

- | | |
|------------------------|---------------------------|
| 1. Never do that. | 4. She has but one dress. |
| 2. I saw nobody. | 5. He had no breakfast. |
| 3. I can hardly do it. | |

The tests were in the form of sentences in which the child had to choose the correct one of two words, for example:

1. We don't need (no, any) paper now.
2. They didn't say (anything, nothing) about it.
3. I won't (ever, never) do it again.
4. Mary can't do her lesson (either, neither).
5. I (can, can't) find but one boy I know in the picture.

Results were computed separately for each complete rotation cycle, four in all, but since the parts were consistent with the whole,

TABLE I

SUMMARY OF 480 INITIAL-TEST AND 480 FINAL-TEST SCORES MADE
BY PUPILS RECEIVING INSTRUCTION IN CORRECTION OF ENGLISH
ERRORS BY ORAL-DRILL AND GRAMMAR METHODS

	Oral-Drill Method	Grammar Method
Mean on final test.	19.17	18.92
Mean on initial test.	15.71	15.59
Difference.	3.46	3.33
Standard error of difference.	0.294	0.290
Ratio of difference to standard error.	11.77	11.48
Chances that progress is real.	Millions*	Millions*

* Statistical computations as in Ernest W. Tieg and Claude C. Crawford, *Statistics for Teachers*, chap. ix. Boston: Houghton Mifflin Co., 1930.

the results on the parts are not given in detail here. The means of the initial-test and the final-test scores for all the eight lesson units are given in Table I.

The first fact to be noted is that each method produced results which were of high statistical significance. The differences were 11.77 and 11.48 times their respective standard errors. Thus, English errors can be corrected, according to the criteria used in this study, by either method. When it is realized that English classes often do no more than to mark time for a semester or for a year, with no measurable growth in correct language habits, these findings give hope. They suggest strongly that teachers should focus on the correction of specific errors, no matter which of the two approaches is used.

The second fact to note is that the two methods are practically equal in effectiveness as used in this study. The difference in the

amounts of progress (.13) is only .31 times its standard error (.413), when for statistical certainty it should be about three times as large. The probability that the oral-drill method would continue to show a superiority over the grammar method in case of further experimentation under similar conditions is small, only 1.6 to 1.

What conclusions may legitimately be drawn from these approximately tied scores for the two methods? Perhaps the following will bear inspection: (1) The oral-drill approach proved to be fully as effective as the grammar approach, although the former is relatively new and in an experimental stage. This finding suggests that oral drill might improve considerably in merit after the technique of using it had been tried out and revised in the light of experience. (2) The dogmatic assertion that the oral-drill method is superior to the grammar method should be tempered by the additional statement that not just any kind of oral-drill procedure will prove superior to the relatively tried and established grammar approach. (3) Since all tests were administered one day after the close of the teaching, further data are needed on the permanency of the results achieved by the two methods.

THE EFFECT OF ENVIRONMENT ON CREATIVE ABILITY IN FOURTH-GRADE CHILDREN

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Although, in the published descriptions of children's creative efforts in poetry, many surmises and theories are current concerning the conditions affecting the poetic productions of children, little attempt has been made to measure definitely the effect of any one factor. It has been assumed, for instance, that children's poetry is a flower rooted only in rich and carefully treated soil where all the surrounding conditions are favorable. That it could flourish in the poor, thin soil of a poverty-ridden environment has been considered practically impossible. Yet no one has made an effort to prove or to disprove the correctness of that assumption.

The experiment reported in this article, by equating as far as possible all other factors, attempted to leave environment as the one variable affecting the output of poetry by two groups of children. There were eighty-two children in each group, with sex and age held fairly equivalent and with intelligence equated on the Pressey Intermediate Classification Test and the Otis Self-administering Tests of Mental Ability. In the first semester each group was a combination of low-fourth and high-fourth grades. In the second semester the low-fourth-grade pupils in each group became high-fourth-grade pupils and remained with the same teacher, the room being filled up with high-fourth-grade pupils from other teachers. The two groups were taught by the same teacher, who used the same books and, so far as was humanly possible, the same methods. The experiment was continued for a full year (1931-32 and 1932-33) in each of two schools, chosen because of their radically different environmental conditions. To make sure that there had been no definite former training in creating or appreciating poetry, the writer conferred with former teachers and learned that earlier acquaintance with poetry had been casual for both groups.

ENVIRONMENTAL DIFFERENCES

The one variable factor, environment, was measured in three ways: by visits to the homes when feasible, by use of the Sims Score Card for Socio-economic Status, and by the results of a carefully conducted survey made by the elementary-school principals of the

TABLE I

DIGEST OF SURVEY OF ENVIRONMENTAL DIFFERENCES OF TWO SCHOOLS

	PERCENTAGE OF FAMILIES IN—		
	Better School	Poorer School	Survey Median
Children in family have attended two or more schools...	43.8	55.2	45.3
One or two children in family	67.0	43.0	48.7
Own their home.....	71.5	25.5	46.4
Live in duplex house or in apartment.....	1.9	55.4	21.5
Foreign-born parents.....	15.1	21.2	31.8
Foreign-speaking parents.....	18.6	30.0	23.5
Unbroken home (both parents at home).....	96.3	83.0	87.6
Outsiders live in home.....	12.1	18.7	19.4
Unemployment in family (based on 1931 figures).....	3.7	19.1	13.9
Family head in business or professional group.....	36.8	10.0	24.4
Family head classed as unskilled laborer.....	3.7	23.6	19.9
Own automobile, telephone, garden, musical instruments	76.2	44.2	58.1*
Own family pets.....	41.8	33.6	37.4
Attend motion pictures.....	78.4	86.7	83.7
Attend church.....	94.4	90.3	88.6
Attend symphony concerts.....	14.4	2.6	12.0
Attend community centers.....	0.0	21.5	11.9
Subscribe to magazines of the quality of:			
<i>Saturday Evening Post</i> or home magazines.....	48.0	27.0	†
Pulp magazines.....	2.0	10.0	†
None.....	13.0	39.0	†

* This figure does not include musical instruments.

† No data on magazines were secured in the survey.

entire section of the city where the two schools are located. In this survey medians were established for environmental conditions, and the better school's deviations above the median were often equaled by the poorer school's deviations below the median.

Ten tables were made from the data thus secured, a digest of which is given in Table I. The tables revealed that the families of the poorer school had a less stable population, the ratio diverging widely as the number of schools which the children had attended in-

creased beyond two. This widely diverging ratio appeared again as the size of families increased beyond one or two children, the poorer school having the larger families. A majority of the families of the better school owned their homes; few of those in the poorer school were home-owners. An exceedingly small percentage of the better-school families lived in apartments or duplex homes, while more than half of the families in the poorer school lived in buildings bearing as close a resemblance to the traditional tenement as the city affords. The percentages of foreign-born and foreign-speaking parents were larger in the poorer school although it is not in a particularly foreign neighborhood. It ranked lowest in the survey in the number of unbroken homes (homes having both parents), and the better school ranked highest. On the contrary, the better school ranked lowest in the survey in the number of homes with outsiders living in the homes.

The poorer school had next to the highest percentage of unemployment (based on figures for the year 1931), the better school the least in the survey. In the better school more than a third of the heads of the families were members of the business and professional group in contrast to a tenth of those in the poorer school. Nearly a fourth of the family wage-earners in the poorer school but very few of those in the better school were unskilled laborers.

In ownership of automobiles, telephones, gardens, and musical instruments, the better school outranked the poorer school by a ratio of nearly two to one, the former being consistently above and the latter consistently below the survey median. The better school ranked higher than the poorer school in the number of family pets.

In attendance at motion pictures and church the two schools were somewhat alike, both being near the median. In attendance at symphony concerts the better school ranked above the median, the poorer school far below. In attendance at community centers, however, the poorer school ranked far above the median against the better school's zero.

A magazine analysis revealed that practically none of the high-class magazines entered the families of either school. The better school reported that nearly half of the families subscribed to magazines of medium class, such as the *Saturday Evening Post* and home magazines; in the poorer school only about a fourth subscribed to

these magazines although boys from the poorer district regularly sold these periodicals. No magazines entered 39 per cent of the homes in the poorer district and 13 per cent of the better homes. The pulp magazines were represented in 10 per cent of the poorer homes and in 2 per cent of the better homes. Since the children who supplied the information were too young to know the shady reputation of the latter group of journals, the percentages are probably approximately correct.

The results of personal visits, the Sims Score Card for Socio-economic Status, and above all the careful analysis in the background survey indicate a decided advantage in environment for the better school over the poorer school, the one being consistently above the median (often near the top) and the other consistently below the median (often near the bottom of the survey).

SECURING AND RANKING THE POETRY

The small amount of literature dealing with children's creative poetry shows general agreement on certain salient points. The writing of poetry can be taught, but not to every child alike. There should be a sound background of first-hand experience, a general acquaintance with good poetry within the children's ken (it is astonishing how much good poetry is within their ken), and some facility in writing down their thoughts. Class criticism and diligent search for words and phrases of interpretative beauty are great helps in constantly raising the standard. Rhyme is not necessary—is, in fact, often a detriment—but accurate observation is absolutely necessary as an aid to imagination.

In the present experiment standard anthologies, such as Blanche J. Thompson's *Silver Pennies* and Louis Untermeyer's *This Singing World*, were used in teaching appreciation, together with selections from such authors as Dorothy Aldis, Walter de la Mare, Eugene Field, Rose Fyleman, A. A. Milne, James Whitcomb Riley, Robert Louis Stevenson, and Sara Teasdale. It was first essential to develop oral reading in order that the children might share their discoveries with an audience. Many bibliographies of timely subjects were made—a practice resulting in a wide acquaintance with poetry. Writing was not encouraged during the six- or eight-week explora-

tory period, although it threatened to break out at any time. Some major class interest, such as a fire or the first snowfall, furnished a good incentive for a class poem, and the class was off to a flying start. Among the individual poems much poor stuff came in, some really good, and some that would be good if the writers were given a little help. Class criticism improved rhyme, rhythm, and choice of words. As needs arose, class attention was turned to the study of metaphor, color words, sound words, words of motion, effects produced by the sounds of letters, and so on. Thus, discrimination and skill in writing were acquired, while poems requiring finer and finer appreciation were discovered in books.

The groups produced in all 269 poems, usually of four-line length, worthy of ranking for poetic value. In the absence of suitable objective standards for ranking poetry, a committee of five judges attempted to assign each poem to one of five groups (best to poorest) graded numerically from one to five. Charles W. Nichols, assistant professor of English, and Dora V. Smith, associate professor of education at the University of Minnesota; Gladys Hasty Carroll, author of *As the Earth Turns*; and Caroline K. Barron and Leone Wilder, principals of Minneapolis elementary schools, who were especially interested in creative writing, graciously consented to serve on this committee.

From the reports of the five judges an average rating for each poem was obtained. The distribution of these ratings is given in Table II. The median rating in the poorer school is 0.2, or one scale interval, above that of the better school. The range of two-thirds of the cases is slightly higher in the poorer school.

These figures indicate that a poor environment need not be a deterrent to creative ability in poetry nor, consequently, to the personality growth arising therefrom. This conclusion, if it can be substantiated by further proof, is very hopeful. Housh says that the purpose of creative writing is more to deepen appreciation of life and beauty than to give skill in creation.¹ Dora V. Smith, defining the proper use of leisure as "the enrichment of personal living," says poetry gives "a renewed significance to the finer and more universal-

¹ Snow Longley Housh, "The Creative Side of Teaching Poetry," *English Journal*, XX (April, 1931), 318-23.

ly touching experiences of life."^{*} If these assertions be true, creative writing is even more necessary among the underprivileged children

TABLE II
DISTRIBUTION, ACCORDING TO AVERAGE RATINGS
GIVEN ON A FIVE-POINT SCALE BY FIVE JUDGES, OF
POEMS WRITTEN BY CHILDREN IN SCHOOLS IN POOR
AND BETTER ENVIRONMENTS

RATING (1 Is Highest)	NUMBER OF POEMS	
	Poor School	Better School
1.0-1.1.....	0	0
1.2-1.3.....	0	0
1.4-1.5.....	2	0
1.6-1.7.....	3	1
1.8-1.9.....	6	2
2.0-2.1.....	2	2
2.2-2.3.....	4	7
2.4-2.5.....	10	10
2.6-2.7.....	10	11
2.8-2.9.....	12	11
3.0-3.1.....	12	15
3.2-3.3.....	11	14
3.4-3.5.....	6	9
3.6-3.7.....	8	13
3.8-3.9.....	7	12
4.0-4.1.....	8	12
4.2-4.3.....	8	18
4.4-4.5.....	10	4
4.6-4.7.....	1	5
4.8-4.9.....	1	1
5.0.....	0	1
Total.....	121	148
Median*.....	3.2±.063	3.4±.051
Standard deviation.....	.82	.73

* The probable error of the difference of the medians is .081.

of a poor environment than among children better situated. How happy the finding that environment need not stand against them!

CONCLUSIONS

The following conclusions were suggested by this experiment, some of which are based on data not presented in this article.

* Dora V. Smith, "The Enrichment of Personal Living," *League Scrip*, XIV (April, 1934), 13-16. Minneapolis, Minnesota: Minneapolis Teachers' League.

1. Children from both poor and better environments can write poetry.

2. The longer the training period in each locality, the better the results produced.

3. The correlation between intelligence and ability to produce creative poetry is not so great as has been supposed. Children of the highest intelligence do not always write the best poetry, and children below normal intelligence can sometimes produce comparatively fair work.

4. Most of the best poetry in this experiment was produced by children with intelligence quotients ranging from 112 to 126.

5. This experiment showed a tendency in both environments for girls to excel boys in writing creative poetry.

6. The difference of 0.2 in the median ranks in favor of the poorer locality indicates that in this experiment environment made no appreciable difference in the quality of poetry produced.

TEACHING DIFFICULTIES OF WHITE AND NEGRO TEACHERS

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How do the teaching difficulties of negro teachers differ from those of white teachers? Are classroom problems more frequent or more varied for one group than for the other? The answer to these questions was sought in a study of one hundred white teachers and one hundred negro teachers in a southern city where the race groups are taught in separate schools but with equal advantages of equipment and supervision. Fifty teachers in each group were normal-school graduates and fifty were non-graduates.

Through the co-operation of elementary-school principals, the teachers were asked to answer the question: "If some one with ability and wisdom had time and authority to help you with your teaching problems, what help or advice would you ask?" Answer sheets were collected by a member of the teachers' group and were returned unsigned to the investigator. The difficulties suggested by the answer sheets are shown in Table I. Twenty-five different types of difficulties were named ten times or more in the returns from the two hundred teachers.

It would seem that negro teachers feel a greater need for supervisory help than do white teachers. The needs which the negro teachers mentioned most frequently had to do with instruction in specific subjects, such as reading, language, and arithmetic. Other problems named comparatively often by the negro teachers concerned the securing of interest and attention, guiding study, and helping backward pupils. The problem named most frequently by the white teachers was that of helping maladjusted pupils. Other problems ranking high for white teachers were concerned with promoting good social habits, handling disciplinary cases, and securing reference materials. It would seem that the white teachers recognized

more difficulties of guidance than difficulties in concrete recitation activities. Both groups of teachers found more difficulty in teaching

TABLE I

TWENTY-FIVE DIFFICULTIES MENTIONED TEN TIMES OR MORE BY ONE HUNDRED WHITE AND ONE HUNDRED NEGRO ELEMENTARY TEACHERS AND FREQUENCY OF MENTION OF EACH DIFFICULTY

DIFFICULTY ENCOUNTERED IN--	FREQUENCY OF MENTION						TOTAL
	White Teachers			Negro Teachers			
	Normal-School Graduates	Non-Graduates	Total	Normal-School Graduates	Non-Graduates	Total	
Teaching reading.....	7	6	13	23	22	45	58
Guiding study.....	2	7	9	23	13	36	45
Teaching language.....	6	3	9	17	15	32	41
Securing interest and attention...	6	8	14	14	13	27	41
Helping maladjusted pupils.....	9	20	29	10	1	11	40
Promoting good social habits....	12	11	23	9	7	16	39
Helping backward pupils.....	5	5	10	11	14	25	35
Handling disciplinary cases.....	14	7	21	6	3	9	30
Finding material for units.....	2	10	12	3	14	17	29
Teaching arithmetic.....	4	4	8	8	13	21	29
Teaching large classes.....	2	3	5	12	10	22	27
Organizing the daily program....	2	9	11	10	4	14	25
Securing reference materials.....	4	13	17	3	4	7	24
Individualizing instruction.....	5	8	13	5	5	10	23
Securing constructive criticism...	3	9	12	3	7	10	22
Presenting subject matter.....	3	9	12	6	2	8	20
Teaching social studies.....	6	1	7	7	6	13	20
Teaching spelling.....	4	2	6	3	5	8	14
Testing pupil progress.....	7	2	9	2	2	4	13
Teaching music.....	4	2	6	3	3	6	12
Getting co-operation of parents..	1	3	4	4	3	7	11
Improving attendance.....	0	0	0	8	3	11	11
Teaching writing.....	0	7	7	3	1	4	11
Helping superior pupils.....	0	7	7	2	2	4	11
Handling promotion problems....	2	4	6	2	2	4	10
All types.....	110	160	270	197	174	371	641

slow pupils in the group with other pupils than in teaching superior pupils. Of course, there is always the question whether difficulties do not exist or whether they are merely unrecognized.

SELECTED REFERENCES ON ELEMENTARY- SCHOOL INSTRUCTION

II. THE SUBJECT FIELDS

This list of references is the second in a series of three lists relating to instruction at the elementary-school level. The preceding list, appearing in the September number of the *Elementary School Journal*, contains items on the curriculum, methods of teaching and study, and supervision. The present list and the next list in the series contain items on these same major aspects of instruction, but the items are grouped by subject fields.

READING¹

WILLIAM S. GRAY

381. ARCHER, C. P., and BIERI, MARGARET. *Improvement of Reading through Individual Instruction*. Ann Arbor, Michigan: Edwards Bros., Inc., 1934. Pp. vi+68.
Provides suggestions for utilizing seatwork activities to extend the child's reading, for discovering the causes of inability to read, and for correcting each of the more common deficiencies.
382. BETTS, EMMETT ALBERT. "Is Reading Related to Growing Up?" *Progressive Education*, XI (December, 1934), 450-53.
Emphasizes the view that "psychological and physiological maturation is probably one of the most significant reading-disability correlates."
383. BETTS, EMMETT ALBERT. "Prevention and Correction of Reading Disabilities," *Elementary English Review*, XII (February, 1935), 25-32, 48.
Outlines corrective aspects of a reading program and suggests principles which may be safely applied in corrective reading.
384. BETTS, EMMETT ALBERT (Chairman). "Reading Disabilities and Their Correction," *Elementary English Review*, XII (March, April, May, and June, 1935), 69-73, 106-10, 131-41, 157-65.
The third annual research bulletin of the National Conference on Research in Elementary School English. Presents critical summaries of forty-five selected studies of reading disability and suggests implications and conclusions.

¹ See also Items 140, 152, and 170 in the list of selected references appearing in the April, 1935, number and Item 177 in the May, 1935, number of the *Elementary School Journal*.

385. BROOKS, HAROLD BENNETT. "Practical Suggestions for Teaching Children Who Have Difficulty in Reading," *California Journal of Elementary Education*, III (February, 1935), 165-70.
Summarizes the results of various studies relating to the problem of reading readiness.
386. CRIDER, BLAKE. "Certain Visual Functions in Relation to Reading Disabilities," *Elementary School Journal*, XXXV (December, 1934), 295-97.
Presents data which indicate that eye-muscle imbalance is related to visual fusion, alternating vision, and ocular dominance.
387. DARBY, O. N. "An Experiment in Teaching Oral Reading," *Journal of the National Education Association*, XXIV (January, 1935), 11-12.
Outlines methods of conducting oral-reading lessons and discusses their advantages.
388. DEWEY, JOSEPH C. "The Acquisition of Facts as a Measure of Reading Comprehension," *Elementary School Journal*, XXXV (January, 1935), 346-48.
Summarizes the results of tests given to about 140 pupils to determine "the relation between ability to secure facts and the ability to do inferential thinking regarding historical material read."
389. DOLCH, EDWARD WILLIAM. "Goals in Intermediate Reading," *Elementary School Journal*, XXXV (May, 1935), 682-90.
Discusses five goals for intermediate reading: "group reading for thinking and discussion"; "reference reading, or the finding of information in books"; "free, independent reading"; "careful reading for important details"; "thought reading for the topic and main idea."
390. DURRELL, DONALD D. "Tests and Corrective Procedures for Reading Disabilities," *Elementary English Review*, XII (April, 1935), 91-95.
Discusses the progress which has been made in providing helpful analytical techniques of diagnosing reading disabilities and efficient corrective procedures.
391. EAMES, THOMAS HARRISON. "Low Fusion Convergence as a Factor in Reading Disability," *American Journal of Ophthalmology*, XVII (August, 1934), 709-10.
Compares the amplitude of fusion convergence of eighty-eight pupils having reading disabilities with an unselected group of fifty-two cases taken at random from Grades II, III, and IV.
392. EAMES, THOMAS HARRISON, and PEABODY, ROBERT WINTHROP. "A Non-Reader Reads," *Journal of Educational Research*, XXVIII (February, 1935), 450-55.
Presents facts showing that, when "existing physical, psychological, and mechanical handicaps are recognized, corrected, and followed by a systematic program of re-education," improvement in reading usually follows.

393. FORAN, T. G. "The Vocabulary of Primary Reading," *Catholic Educational Review*, XXXII (December, 1934), 596-607.
Presents conclusions, based on the results of related studies, concerning the vocabulary of beginning books on reading.
394. GATES, ARTHUR I. "Viewpoints Underlying the Study of Reading Disabilities," *Elementary English Review*, XII (April, 1935), 85-90, 105.
Summarizes various viewpoints embodied "in experimental work upon the causes of disability and types of diagnosis and remedial instruction in reading."
395. GRAY, WILLIAM S. "Reading," *Special Methods and Psychology of the Elementary School Subjects*, pp. 54-69, 111-14. Review of Educational Research, Vol. V, No. 1. Washington: American Educational Research Association of the National Education Association, 1935.
Presents a brief summary of the results of eighty-three scientific studies on the psychology and methods of teaching reading in elementary schools, which were published during the period from July 1, 1931, to June 30, 1934.
396. GRAY, WILLIAM S. "Problems of Reading Disabilities Requiring Scientific Study," *Elementary English Review*, XII (April, 1935), 96-100.
Discusses types of problems relating to reading disabilities which require further scientific study.
397. GREENE, EDWARD B. "Michigan Speed of Reading Tests," *Journal of Educational Research*, XXVIII (December, 1934), 283-88.
Reports steps taken in developing speed of reading tests at the fourth-grade level and in determining age and grade norms for about three thousand persons, ranging from those in Grade III to college Seniors.
398. GROSS, ALINE E. "A Preprimer Vocabulary Study," *Elementary School Journal*, XXXV (September, 1934), 48-56.
Presents a list of 238 words "used four or more times in ten preprimers, frequency of use in each book, and rank according to frequency of use in all books."
399. HEGGE, THORLEIF G. "Special Reading Disability with Particular Reference to the Mentally Deficient," *Proceedings of the Fifty-eighth Annual Session of the American Association on Mental Deficiency, Held at New York City, May 26-May 29, 1934*, pp. 297-343.
Summarizes the diagnosis and discusses the etiology of a group of mentally deficient pupils with special reading disabilities. Describes the remedial program adopted and the results secured.
400. HILDRETH, GERTRUDE. "An Individual Study in Word Recognition," *Elementary School Journal*, XXXV (April, 1935), 606-19.
Presents the results of a study of "the achievement of a normal child of entering-school age in word-symbol-learning as the result of consecutive daily practice."

401. INGRAM, CHRISTINE P. "Reading Experiences for the Child Who Learns Slowly," *Instructor*, XLIII (September, 1934), 23, 67; (October, 1934), 25, 70.
Discusses the reading attainments that may be expected of slow-learning children of eight, nine, and ten years of age and the methods appropriate in stimulating growth.
402. JOHNSON, EDNA, and SCOTT, CARRIE E. (Compilers). *Anthology of Children's Literature*. Boston: Houghton Mifflin Co., 1935. Pp. xxviii+914.
Includes classified selections from children's literature, as well as supplementary bibliographies and background material helpful to young teachers.
403. KELLEY, ANNA A. "Factors in Teaching Remedial Reading," *American School Board Journal*, LXXXIX (November, 1934), 31-32, 54, 56-57.
Discusses problems in teaching reading and various types of training essential for pupils who encounter difficulty in learning to read.
404. KIRBY, BYRON C. "Silent-Oral Wins in Test," *Journal of Education*, CXVII (December 3, 1934), 533-34.
Summarizes the results of a study in Grades II-VI, inclusive, to determine the relative merits of the silent and the silent-oral methods of teaching reading.
405. LAMOREAUX, LILLIAN A.; FARLEY, REBECCA; HERRING, BLANCHE; and TROTT, FRED. "Remedial Reading Instruction in Sixth Grade Groups," *California Journal of Elementary Education*, III (November, 1934), 116-22.
Presents the results of a study of the reading achievements and needs of three sixth-grade classes, discusses the remedial procedures adopted, and describes the conditions under which growth in reading occurs most effectively.
406. MCBROOM, MAUDE, and STORMES, BERNICE. "Experiences in Pre-Primer Reading Period," *Midland Schools*, XLIX (December, 1934), 129-30.
Discusses "when a child is ready for reading," "the purposes in getting ready," and desirable early reading experiences.
407. MACLATCHY, JOSEPHINE H., and BEAVERS, ETHEL B. "A Sixth-Grade Teacher Studies Reading," *Educational Research Bulletin*, XIII (September 19, 1934), 141-47.
Describes the methods used in classifying pupils into groups on the basis of their reading needs and in providing differentiated instruction.
408. MACLATCHY, JOSEPHINE H., and BEAVERS, ETHEL B. "Reading for Enjoyment in the Sixth Grade," *Educational Research Bulletin*, XIV (February 13, 1935), 38-44.
Reports for a superior section of a sixth-grade class the amount of reading done for enjoyment when opportunity was provided and the effect of such reading on the pupils' achievement in oral and silent reading.

409. MONROE, MARION. "Diagnosis and Treatment of Reading Disabilities," *Educational Diagnosis*, pp. 201-28. Thirty-fourth Yearbook of the National Society for the Study of Education. Bloomington, Illinois: Public School Publishing Co., 1935.
Presents a summary of the causes of reading disability and of appropriate remedial measures.
410. MYERS, VEST C. "A Study of Present-Day Methods of Developing Independent Recognition of Words," *Educational Method*, XIV (January, 1935), 205-6.
Presents the results of a survey of courses of study, manuals accompanying readers, and recent books and articles to determine the use of phonics, contextual clues, seatwork, and the reading table in promoting the independent recognition of words.
411. NEWBURN, HARRY K. "The Relative Effect of Two Methods of Vocabulary Drill on Achievement in American History," *Doctoral Theses in Education*, II, 9-30. University of Iowa Studies in Education, Vol. IX, No. 3. Iowa City, Iowa: University of Iowa, 1934.
Summarizes the results of controlled experiments including more than nine hundred pupils to determine the effect on achievement in American history when a portion of the history hour is devoted to more or less formal drill on word meanings.
412. PENNELL, MARY E., and CUSACK, ALICE M. *The Teaching of Reading for Better Living*. Boston: Houghton Mifflin Co., 1935. Pp. viii+470.
Discusses at length the practical problems involved in teaching reading in the kindergarten and Grades I-VI in the elementary school.
413. RYAN, CALVIN T. "Vocabulary Enlargement in the Middle Grades," *Elementary English Review*, XII (May, 1935), 115-17.
Describes methods which have been used successfully in the intermediate grades in enlarging vocabularies.
414. SCRUGGS, SHERMAN D. *Effect of Improvement in Reading upon the Intelligence of Negro Children*. Abstract of Doctoral Dissertation. University of Kansas Bulletin of Education, Special Issue. Lawrence, Kansas: University of Kansas, 1935. Pp. 30.
Presents the results of studies involving 202 fifth-grade pupils in ten classes of six negro schools in Kansas City, Kansas.
415. SMITH, NILA BANTON. *American Reading Instruction*. Newark, New Jersey: Silver, Burdett & Co., 1934. Pp. x+288.
Reports the results of an intensive study to determine the changes in the content and the methods of reading instruction in America.
416. THOMSON, JENNIE LLOYD. "Big Gains from Postponed Reading," *Journal of Education*, CXVII (October 15, 1934), 445-46.
Presents results of experiments with two groups of young children to determine the most appropriate age at which to begin instruction in reading.

417. THORNDIKE, EDWARD L. "Improving the Ability To Read," *Teachers College Record*, XXXVI (October, November, and December, 1934), 1-19, 123-44, 229-41.
Defines and discusses three phases of reading which should be emphasized in Grades IV-IX, inclusive; presents the results of analyses, on the basis of the Thorndike word list, of the vocabulary difficulty of various books often read in these grades; and presents proposals of modifications in books by "deservedly famous English writers" to increase their readability for pupils in Grades IV, V, and VI.
418. TIFFIN, JOSEPH. "Simultaneous Records of Eye-Movements and the Voice in Oral Reading," *Science*, LXXX (November 9, 1934), 430-31.
Describes apparatus essential in securing simultaneous records of eye-movements and the voice in oral reading.
419. TINKER, MILES A. "Remedial Methods for Non-Readers," *School and Society*, XL (October 20, 1934), 524-26.
Discusses characteristics of non-readers and describes the remedial procedures adopted by various investigators.
420. TINKER, MILES A. "Cautions concerning Illumination Intensities Used for Reading," *American Journal of Optometry*, XII (February, 1935), 43-51.
Summarizes data relative to illumination intensities which will insure the most "comfortable, healthful, and efficient functioning of the eyes in the reading situation."
421. WATERMAN, IVAN R., and MELBO, IRVING R. "Selection of Sixth Grade Reading Textbooks for California Adoption," *California Journal of Elementary Education*, III (February, 1935), 133-41.
Describes the criteria used in selecting readers and presents the numerical ratings attached to six highest ranking sixth-grade textbooks in reading.
422. WATERMAN, IVAN R., and MELBO, IRVING R. "A Plan of Procedure for the Evaluation of Textbooks in Reading," *Elementary School Journal*, XXXV (May, 1935), 662-74.
Describes procedures which may be used in the scientific selection of textbooks and suggests specific studies which can be made in the process of selecting a basic textbook in reading.
423. WOOLF, HENRIETTE. "The Relation of Intelligence Test Scores of Kindergarten Children to Their Reading Test Scores in the First Grade," *School and Society*, XL (August 4, 1934), 150-52.
Presents conclusions based on data secured in the kindergarten and primary grades during three consecutive semesters.
424. WRIGHT, ETHEL C. "Favorite Children's Books of the Past Decade," *Elementary English Review*, XII (April, 1935), 101-4.
Discusses the books written during the past decade that "have securely established themselves as prime favorites with the children."

425. YOAKAM, GERALD. "Basic Elements Determining Abilities in Reading." *Educational Outlook*, IX (November, 1934), 1-11.

Presents the results of an analytical study of the basic elements that determine ability in reading.

ENGLISH¹

R. L. LYMAN

426. BETTS, EMMETT ALBERT, and BONTRAGER, O. R. *Research Studies in Elementary School Language*, No. 1. University of Iowa Studies in Education, Vol. IX, No. 2. Iowa City, Iowa: University of Iowa, 1934. Pp. 64.

The study by Betts, "An Evaluation of Certain Techniques for the Study of Oral Composition," compares five methods of collecting records of oral-language activities: shorthand reporters, court reporters, longhand reporters, phoneticians, and electrical-recording apparatus. Bontrager's study, entitled "An Experimental Appraisal of Pupil Control of Certain Punctuation Items," presents an analysis of a criterion of correct usage in punctuation and attempts to determine proper grade placement of forty-four items of punctuation.

427. DUBOC, JESSIE L. "Who Is Equipped To Evaluate Children's Compositions?" *Elementary English Review*, XII (March, 1935), 60-63.

A report based on a study of teachers' evaluations of children's compositions. The report stresses the need (1) for the recognition of evaluation as a means of improvement and (2) for the training of pupils in self-evaluation of written work.

428. GEOGHEGAN, PATRICIA S., and FITZGERALD, JAMES A. "Composition Errors in Letters Written by Children Outside the School," *Elementary School Journal*, XXXV (June, 1935), 768-75.

Reports the findings of a study of 748 letters of 99,960 running words written by rural and urban children from a number of different states. The data presented should be of value to teachers in directing remedial work and in planning preventive measures in composition classes.

429. GLASER, EMMA. *On the Teaching of Junior High School English*. New York: D. Appleton-Century Co., Inc., 1935. Pp. 308.

A summary of modern viewpoints in the teaching of junior high school English.

430. GOODYKOONTZ, BESS. "Four Questions about the English Curriculum and Their Current Answers," *Elementary English Review*, XI (November, 1934), 237-44, 250.

Discusses four questions confronting the makers of an English curriculum for elementary schools: What should constitute the English program? What is the subject matter of the English curriculum? How shall material be organized? What differentiation for varied abilities, interests, and needs should be

¹ See also Item 61 in the list of selected references appearing in the February, 1935, number of the *School Review* and Items 336 and 368 in the September, 1935, number of the *Elementary School Journal*.

provided? Presents an annotated bibliography of a few recent courses of study and language textbooks and tells how their makers have answered the four questions under discussion.

431. GREENE, HARRY A. "English Language," *Special Methods and Psychology of the Elementary-School Subjects*, pp. 37-44, 99-104. Review of Educational Research, Vol. V, No. 1. Washington: American Educational Research Association of the National Education Association, 1935.
- A review of research in English at the elementary-school level. Summarizes the available objective evidence from January 1, 1931, to July 1, 1934.
432. GREENE, HARRY A. "Improving the Elementary English Curriculum," *Elementary English Review*, XII (March, 1935), 74-77.
- A discussion setting forth three basic suggestions for putting objectivity into the language curriculum of the elementary school: (1) the establishment of adequate objective authority for the selection of significant and acceptable practice, (2) the need for more complete and more accurate data on oral-language usages, and (3) greater recognition of social demands.
433. KEENER, E. E. "More about 'Current English Usage,'" *Elementary English Review*, XI (September, 1934), 177-79.
- A criticism of the monograph *Current English Usage*, published by the National Council of Teachers of English, "based on extravagant claims which are made in the editorial comments and on statistical errors which are apparent in the data."
434. LAWSON, DOUGLAS E. "Confusion in Language Textbooks," *English Journal*, XXIII (December, 1934), 832-33.
- A conclusion, based on a study of thirty-five textbooks, that language textbooks for Grades V-VIII, inclusive, lack definiteness as to aims and objectives as well as to method and content.
435. LAWSON, DOUGLAS E. "The Content of Language Textbooks," *Elementary English Review*, XII (March, 1935), 57-59.
- An analysis of materials presented in language textbooks for Grades V-VIII, inclusive, showed little agreement among the authors of the textbooks as to what specific items should be presented in a particular grade.
436. MABIE, ETHEL. "Releasing Language Power," *Elementary English Review*, XII (March, 1935), 64-68.
- Points out the dangers in the use of criticism, competition, and constant correction and urges emphasis on courtesy, interest, naturalness, clearness, appropriateness, and correctness through development of standards that children understand and through making language expression a two-way activity.
437. MCCARROLL, JESSIE M. "Self-Direction in Eighth-Grade English: An Experiment," *English Journal*, XXIV (January, 1935), 45-49.
- A report of an experiment in an eighth-grade English class. Discusses the value of turning over to the pupils the problem of planning units of work.

438. MENDENHALL, LAWRENCE C. "Speech Methods—A Conservation of Natural Illusions," *Education*, LV (March, 1935), 440-42.
Discusses the need to extend the services of the entire speech staff to all activities in which pupils are required to speak rather than to continue to depend on questionable, flimsy devices of imaginary situations.
439. O'ROURKE, L. J. "A Study of Methods of Teaching English in the Elementary Grades," *School and Society*, XL (October 6, 1934), 454-56.
A report of a part of the nation-wide study in English conducted by the Psychological Institute. From the results of preliminary surveys a series of teaching lessons have been prepared to set up a teaching program designed not merely to insure emphasis on essentials but also to insure maximum progress in mastery of the phases of usage taught.
440. SMITH, DORA V. "Diagnosis of Difficulties in English," *Educational Diagnosis*, pp. 229-67. Thirty-fourth Yearbook of the National Society for the Study of Education. Bloomington, Illinois: Public School Publishing Co., 1935.
Discusses the scope of the teaching of English, the need of seeing the problem whole, the objectives of the teaching of English, elements contributing to success or failure in English, and the problems of diagnosis and remedial work. Presents twenty problems awaiting research.
441. SYMONDS, PERCIVAL M. "The Correlation of English with Other Subjects from the Point of View of Psychology," *Elementary English Review*, XI (September, 1934), 173-76, 191.
Discusses the correlation of English and other subjects and points out advantages and dangers in present experimentation in that field.
442. SZEKLER, JULIET M. "Integration," *English Journal*, XXIV (June, 1935), 476-80.
Discusses the possibilities of integrating the individual pupil in his spiritual, economic, and social contacts through literature.
443. TRABUE, M. R. "Devitalizing Elementary Language," *Elementary English Review*, XII (March, 1935), 53-56.
A satirical picture of how teaching practices make pupils dislike language work. Includes a list of specific directions to teachers to be disobeyed.
444. UZZELL, THOMAS H. "Creative Writing: A Professional View," *English Journal*, XXIV (January, 1935), 10-17.
A discussion by a literary agent and former editor, which prescribes "free," spontaneous expression in writing, without thought of style or correctness, at every stage of the way in English classes.
445. WEEKES, BLANCHE E. *Literature and the Child*. Newark, New Jersey: Silver, Burdett & Co., 1935. Pp. vi+456.
A comprehensive volume whose most valuable chapters present a survey of current authors who write literature for children.

446. WELLS, RUTH E. "Humorous Literature in the Junior High School," *English Journal*, XXIV (January, 1935), 35-44.
Discusses three attempts to cultivate appreciation of humorous literature.
447. WRIGHTSTONE, J. WAYNE. "Comparison of Newer with Conventional Practices in English," *English Journal*, XXIV (May, 1935), 399-403.
Presents data to show that results of teaching in which the language arts are correlated are superior to the results of teaching in which the language subjects are presented separately.
448. ZELIGS, ROSE. "Psychological Factors in Creative Writing with Illustrations from Sixth Grade Material," *Education*, LV (December, 1934), 228-33.
A discussion presenting meaningful experiences of children, freedom in expression, and a stimulus to express as requirements for creative work.

SPELLING*

FREDERICK S. BREED

449. BREED, FREDERICK S. "Spelling," *Special Methods and Psychology of the Elementary-School Subjects*, pp. 83-88, 118-20. Review of Educational Research, Vol. V, No. 1. Washington: American Educational Research Association of the National Education Association, 1935.
Summary and bibliography of sixty-seven studies in spelling published during the triennium ending June 30, 1934.
450. FORAN, THOMAS GEORGE. *The Psychology and Teaching of Spelling*. Washington: Catholic Education Press, 1934. Pp. xii+234.
A book based on a thorough canvass and analysis of scientific sources, reflecting fundamental problems in its organization and presenting a body of conclusions safely moored to a factual foundation.
451. GARRISON, KARL C. "A Study of Words Frequently Misspelled by Seventh and Eighth Grade Pupils and by College Freshmen," *High School Journal*, XVIII (February, 1935), 60-62.
Compares the misspellings of college Freshmen with those of seventh- and eighth-grade pupils. Presents a list of 131 misspelled words that should have value for the English program in high schools.
452. GATES, ARTHUR I., and BENNETT, CHESTER C. "The Daily versus the Weekly Lesson Plan in Spelling," *Journal of Educational Research*, XXVIII (November, 1934), 203-6.
Reports inconclusive results from a comparison of the daily- and the weekly-assignment methods of instruction. Differences in methods might have been obscured by differences in the abilities of the teachers of the compared groups.

* See also the chapter on spelling in Item 332 in the list of selected references appearing in the May, 1935, number of the *School Review*.

453. GATES, ARTHUR I., and GRAHAM, FREDERICK B. "The Value of Various Games and Activities in Teaching Spelling," *Journal of Educational Research*, XXVIII (September, 1934), 1-9.
- Reports that experimental groups using courses containing games and word-work activities gained as much in spelling ability as control groups using the ordinary test-study and study-test methods. Eighty-nine per cent of the pupils who had had experience with both the older and the newer types of courses expressed a preference for the latter.
454. GILBERT, LUTHER C. "A Study of the Effect of Reading on Spelling," *Journal of Educational Research*, XXVIII (April, 1935), 570-76.
- Shows that the spelling of senior-college and graduate students improved incidentally during their reading. Good spellers acquired more in this manner than poor spellers, and, in general, twice as much improvement was registered in immediate than in remote recall.
455. GILBERT, LUTHER C., and LOOFBOUROW, G. C. "High-School Spelling of English and Foreign Language Words," *Modern Language Journal*, XIX (January, 1935), 266-70.
- Finds that spelling achievement improved from grade to grade in a high school where spelling was not studied and that the improvement was greater and more regular in English than in modern foreign languages.
456. GOTTENBERG, W. L. "An Analysis of High School Misspelling," *High School Teacher*, XI (February, 1935), 55-56.
- Analysis of 770 misspellings of high-school pupils, eventuating in a doubtful classification of the causes of error and several questionable recommendations.
457. GRAY, W. H. "The Effect of Hypnosis on Learning To Spell," *Journal of Educational Psychology*, XXV (September, 1934), 471-73.
- A study designed to show whether spelling can be taught more readily to students under the influence of hypnosis than in a normal state. No significant difference was found.
458. LANIER, ELSIE. "A Plan for the Hopeless Speller," *English Journal*, XXIII (October, 1934), 679-80.
- Describes a method of treating cases of pronounced deficiency in spelling used in high-school English classes.
459. OGLE, F. A. "Teaching Spelling in Rural Schools," *Nation's Schools*, XIV (December, 1934), 21-23.
- Reports measurements of spelling improvement in rural schools, showing that the larger schools made more progress than the smaller and that schools using the test-study method made more progress than those using the study-test method.
460. SCHONELL, F. J. "Diagnostic Tests in Spelling," *The Year Book of Education*, 1935, pp. 490-93. London, England: Evans Brothers, Ltd., 1935.
- Concludes, on the basis of a theoretical psychological analysis, that memory, phonetic analysis, auditory discrimination, and recognition are the important

mental processes involved in spelling and suggests the need of diagnostic tests designed to measure these processes.

461. WELLER, LOUISE, and BROOM, M. E. "A Study of the Validity of Six Types of Spelling Tests," *School and Society*, XL (July 21, 1934), 103-4. Describes results that should be carefully weighed in the light of previous investigations, some of the more important of which are not mentioned by the investigators.
462. WHITTENBURG, CLARICE. "Spelling for Group and Individual Needs," *American Childhood*, XX (March, 1935), 34, 38-39. Describes a combination of individual and group work feasible with the pretest technique and a variety of exercises similar to those found in the more recent textbooks of the workbook type.

HANDWRITING

FRANK N. FREEMAN

463. CONARD, EDITH UNDERWOOD. "The Growth of Manuscript Writing in the United States," *Childhood Education*, XI (January, 1935), 170-74. Contains a brief summary of some of the experiments on manuscript writing.
464. EMERSON, CORA P. "Man Learns To Write," *Instructor*, XLIII (October, 1934), 41, 66. A lesson plan on the origin and the development of handwriting.
465. JULIAN, KATHERINE L. "Creating Interest in Penmanship," *Instructor*, XLIV (March, 1935), 48, 65. A description of the plan of instruction by grouping according to ability and individualizing instruction.
466. LAWRENCE, FANNY ELIZABETH. "Preschool Drawing Prepares for Writing," *American Childhood*, XX (January, 1935), 11-12. Suggests types of drawing to develop the ability to use the pencil and ways of teaching them.
467. LYNN, MASSACHUSETTS, PUBLIC SCHOOLS. "A Good Start in Writing," *American Childhood*, XX (September, 1934), 15, 42-43. A brief account of the method used in instruction in handwriting in Grade I.
468. MCCALMONT, A. LUCILLA. "The Penmanship Lesson: Modern Tendencies in the Teaching of Handwriting," *Grade Teacher*, LII (September, 1934), 46, 75. A suggested lesson plan for the intermediate grades.
469. REFSNES, MYRTLE J. "Teaching Penmanship: A Selection of Word Lists for Beginners," *Grade Teacher*, LII (September, 1934), 28, 77. Describes a grouping of words based on the forms of the letters.
470. REILLY, FREDERICK J. "Handwriting To Be Read," *Journal of Education*, CXVII (June 4, 1934), 305-6. Suggests the desirability of more compact writing.

471. TENWOLDE, HARRY. "A Comparison of the Handwriting of Pupils in Certain Elementary School Grades 'Now and Yesterday,'" *Journal of Applied Psychology*, XVIII (June, 1934), 437-42.
The writing of a group of forty pupils in Grades V-VIII in 1931 was found to be inferior to the writing of thirty-seven pupils in 1912 and twenty-four pupils in 1879.
472. TENWOLDE, HARRY. "More on Sex Differences in Handwriting," *Journal of Applied Psychology*, XVIII (October, 1934), 705-10.
A comparison of the quality of writing of boys and girls and a study of the identifiableness of the sex of writers.
473. VERNON, P. E. "A New Instrument for Recording Handwriting Pressure," *British Journal of Educational Psychology*, IV (November, 1934), 310-16.
Records both grip pressure and point pressure by an arrangement of levers and tambours within a stylus.

THE SOCIAL SCIENCES¹

R. M. TRYON

474. BRENNAN, CECILIA E. "Teaching History in the Rural School," *Oregon Education Journal*, IX (October, 1934), 10, 26-27; (November, 1934), 19-20.
Some pertinent suggestions to teachers of history in the rural schools relative to guide sheets, tests, reference books, cartoons and clippings, scrapbooks, history booklets, and games.
475. CHASE, W. LINWOOD. "Determination of Grade Placement of History Material," *Journal of Educational Research*, XXVIII (April, 1935), 593-96.
An attempt to test the reliability of the Vogel and Washburne method of determining grade placement of reading material. The study shows that the method is not reliable for the placement of historical material.
476. CRAWFORD, C. C. "Need for the Social Sciences in Education," *Texas Outlook*, XIX (March, 1935), 35.
A brief, effective, and urgent plea for more attention to the social sciences in the schools.
477. DEWEY, JOSEPH C. "A Program for Social Science," *School and Community*, XXI (January, 1935), 46-49. Columbia, Missouri: Missouri State Teachers Association.
A plea for a program in the social sciences based on objectives formulated by specialists in these sciences.
478. HAISLEY, OTTO W. *Teaching the Social Studies in the Ann Arbor Public Schools*. Ann Arbor, Michigan: Board of Education, 1935. Pp. 30.
The superintendent of schools discusses the underlying principles and procedures which govern the teaching of the social sciences in the Ann Arbor schools.

¹ See also Item 72 in the list of selected references appearing in the February, 1935, number of the *School Review*.

479. HALE, FLORENCE. "Teaching Local History," *Grade Teacher*, LII (March, 1935), 44, 46, 72-73.
A practical plan of procedure for the teaching of local history in the intermediate grades. The history of Maine is taken as a type study.
480. HATTERSLEY, ALAN FREDERICK. *History Teaching in Schools*. New York: Longmans, Green & Co., 1935. Pp. 158.
A small volume intended as a handbook for teachers and for students in universities and training colleges in the Union of South Africa. It will interest the person who wishes to broaden his knowledge of history in the elementary and the secondary schools.
481. HUBBARD, ELEANORE. *The Teaching of History through Dramatic Presentation*. Chicago: Benj. H. Sanborn & Co., 1935. Pp. xii+448.
A book of practical suggestions pertaining to ways and means of helping pupils to interpret, to feel, and to see the color, the movement, and the life of the panorama of human progress.
482. KANDEL, I. L. "The Conclusions and Recommendations of the Social Studies Commission of the American Historical Association," *Educational Administration and Supervision*, XXI (January, 1935), 27-31.
A consideration of the conclusions of the commission named in the title with respect to the part they should play in the building of the future social order. The first third of the commission's report is criticized adversely and the remainder mildly favorably.
483. KELLETT, KENNETH. "Developing a Social Science Library in the Classroom," *Wisconsin Journal of Education*, LXVII (March, 1935), 331-32.
A few pertinent suggestions on how to build up a worth-while classroom library in the social sciences.
484. KNUDSEN, CHARLES W. "Social Studies," *Psychology and Methods in the High School and College*, pp. 462-65, 524-25. Review of Educational Research, Vol. IV, No. 5. Washington: American Educational Research Association of the National Education Association, 1935.
Brief comment on twelve recent investigations involving the social sciences as school subjects.
485. LABRANT, LOU L. "Curriculum Responsibilities of the North Central Association: III. The Social Science Aspect of Free Choice Activities," *North Central Association Quarterly*, IX (January, 1935), 328-32.
An account of an experiment involving free-choice activities as factors in a social-science program.
486. LEVINE, MICHAEL. "Social Science as the Core of the Curriculum," *High Points in the Work of the High Schools of the City of New York*, XVII (February, 1935), 10-13.
A few practical suggestions relative to the steps which might be taken in New York City to elevate the social sciences to their proper place in the educational sun.

487. LINCOLN TEACHERS' ASSOCIATION, CIVIC COMMITTEE. "What Do Teachers Know about Current Problems?" *Nebraska Educational Journal*, XV (May, 1935), 203-4, 216.
A valuable list of questions pertaining to current social and political problems, New Deal policies, money and banking, the Constitution, and foreign affairs.
488. SCHWARZ, ALLAN. "Vitalizing the Social Sciences," *Nebraska Educational Journal*, XIV (September, 1934), 245-46; "Excursions Enrich Social Studies," *Nebraska Educational Journal*, XIV (October, 1934), 297; "Make Social Studies Meaningful," *Nebraska Educational Journal*, XIV (November, 1934), 388-89.
Three brief articles which contain the results of an investigation of the methods used by teachers in Nebraska to vitalize the teaching of the social sciences.
489. STORMZAND, M. J., and LEWIS, ROBERT H. *New Methods in the Social Studies*. New York: Farrar & Rinehart, Inc., 1935. Pp. x+224.
A somewhat extended description and explanation of a few of the most widely used and most successful so-called "new" plans of instructional procedure in the social sciences.
490. TRYON, ROLLA M. *The Social Sciences as School Subjects*. Report of the Commission on the Social Studies of the American Historical Association, Part XI. New York: Charles Scribner's Sons, 1935. Pp. xiv+542.
A portrayal of the efforts of national organizations in behalf of the social sciences as school subjects and a historical treatment of history, political science, economics, and sociology as school subjects in Grades I-XII. Treats also the matter of organizing the social sciences for teaching purposes in elementary and secondary schools.
491. TUCKER, H. R. "Humanizing the Social Sciences," *School Executives Magazine*, LIV (March, 1935), 204, 215.
A plea for courses in the social sciences which focus on social living in the present.
492. WRIGHTSTONE, J. WAYNE. "Appraising Newer Practices in Teaching Social Studies," *School Review*, XLII (November, 1934), 688-93.
A report on an investigation to determine the relative value of some new-type practices in the teaching of the social sciences in Grade XII and the conventional techniques of teaching these subjects.

GEOGRAPHY

EDITH P. PARKER

493. AITCHISON, ALISON. "Statistics in Geography Classes," *Midland Schools*, XLIX (March, 1935), 216-17.
Indicates use of statistics in raising and helping to solve geographic problems.
494. AITCHISON, ALISON E., and UTTLEY, MARGUERITE. A series of articles in *Midland Schools*, XLIX (October and November, 1934; January, April, and May, 1935), 76; 99, 115; 156, 158; 259; 296.

Discusses, in "Choice of Pictures in Geography," the general parallelism between field work and the effective use of pictures in geographic study; in "Objective Tests in Geography," difficulties in constructing objective tests in geography and some types of satisfactory test exercises; in "Latitude and Length of Day," the need for understanding relations between man's activities and length of day; in "Map and Globe Equipment," the types of such equipment suitable at various levels; and in "Geographic Individuality," the meaning of this term and the use for testing purposes of paragraphs describing the individuality of specific regions.

495. BLOOD, BENITA R., and KAASA, ELIZABETH J. "Teaching Geography through Pictures," *Aids to Teaching in the Elementary School*, pp. 204-8. Thirteenth Yearbook of the Department of Elementary School Principals. Bulletin of the Department of Elementary School Principals, Vol. XIII, No. 5. Washington: Department of Elementary School Principals of the National Education Association, 1934.
- Gives examples of exercises using pictures as source material, as review material, and for testing purposes.
496. CARTER, HARRIET. "New Material for Home Geography," *Journal of Geography*, XXXIV (May, 1935), 201-7.
- Describes, by giving Pittsburgh as an illustration, the use of local field experiences and statistical data in an effective unit in sixth-grade geography.
497. CLARK, ROSE B. "Geography in the Schools of Europe," *Journal of Geography*, XXXIV (February, 1935), 67-77.
- Abstracts the material published earlier in the second part of the Report of the Commission on the Social Studies of the American Historical Association, Part V (Item 454 in the October, 1934, list of selected references).
498. CROPPER, FLOYD A. "An Experimental Evaluation of the Ability of Children To Interpret the Pictures Used in Elementary Textbooks in Geography," *Journal of Geography*, XXXIV (March, 1935), 89-101.
- Draws conclusions based on a comparison of results of tests of picture-reading ability given before and after specific instruction in such reading.
499. DAVIS, GEORGIA. "The Value of Certain Techniques Used in Connection with Study Helps in Geography with Pupils in Beginning Fourth Grade Classes," *Journal of Geography*, XXXIV (January, 1935), 33-38.
- Reports experimentation designed to discover the relative value of oral and written responses to study helps.
500. GRASSMUCK, ERNA. "Selection and Evaluation of Maps, Globes, and Charts," *Aids to Teaching in the Elementary School*, pp. 209-13. Thirteenth Yearbook of the Department of Elementary School Principals. Bulletin of the Department of Elementary School Principals, Vol. XIII, No. 5. Washington: Department of Elementary School Principals of the National Education Association, 1934.

- Discusses the selecting, acquiring, making, and handling of maps and other equipment at various levels.
501. HANSON, RAUS M. "How We May Improve Geography Tests," *Virginia Teacher*, XV (September, 1934), 127-33.
Emphasizes the necessity for testing relationship ideas rather than isolated facts.
502. KEPNER, TYLER. "The Influence of Textbooks upon Method," *The Historical Approach to Methods of Teaching the Social Studies*, pp. 143-72. Fifth Yearbook of the National Council for the Social Studies. Philadelphia: McKinley Publishing Co., 1935.
Traces the developments in technique in geography and history as disclosed by selected textbooks.
503. MILLER, GEORGE J. (Editor). *Human Geography Studies—The United States*. Geographic Education Series, No. 2. Bloomington, Illinois: McKnight & McKnight, 1935. Pp. 238.
Presents units to serve as guides to teachers in the selection and the use of geographic materials. A compilation of articles previously published in the *Journal of Geography*.
504. MORAN, GRACE. "Pre-Geography Learnings Resulting from Community Life Studies," *Journal of Geography*, XXXIV (May, 1935), 196-201.
An analysis of childrens' experiences in community-life studies in primary grades.
505. PARKINS, A. E. "The Geography of American Geographers," *Journal of Geography*, XXXIII (September, 1934), 221-30.
Discusses various definitions of geography to show elements common to all and the insignificance of definitions as compared with the outcomes of geographic work.
506. PROUTYOOT, MALCOLM J. "Use of Photographs in Teaching Geography at Four Primary Levels," *Journal of Geography*, XXXIV (February, 1935), 61-67.
Shows how pictures may be used as an integral part of units to help develop four types of understandings.
507. RIDGLEY, DOUGLAS C. (Editor). "Geography Number," *Education*, LV (January, 1935), 257-316.
From the Foreword: "Among the contributors to the Geography Number of *Education* are specialists in the field of geography, specialists in . . . education, the classroom teacher, and the university student. . . . Dr. [W. Elmer] Ekblaw sounds no uncertain call for the study of modern geography in the schools as a preparation for citizenship in a democracy. . . . Dr. [Howard E.] Wilson analyzes the function of social studies in the junior high school and offers a suggestive program. . . . Dr. [Daniel A.] Prescott shows how geography

can function in developing a wholesome understanding of the various peoples of the world. . . . Mr. [Ernest] Young interprets geography in the schools of England. . . . Professor [George J.] Miller emphasizes the need of selecting teachers trained in geography as special teachers of geography. . . . Mr. [Carl J.] Blomfield brings together . . . statements from ten writers concerning the place of geography in the social studies. . . . Miss [Alice] Foster traces the history of geography in American secondary schools. . . . Dr. [Derwent] Whittlesey analyzes the problems of political geography. . . . Miss [Josephine] Moyer describes how . . . Reading, Pennsylvania, has provided visual instruction for the schools. . . . Dr. [James E.] Lough presents . . . advantages offered by [experiences of the 'Floating University' type]. . . . Professor [William M.] Gregory presents a plan for evaluating geography textbooks objectively. . . . The list of textbooks in geography comprises books suitable for use from third grade through the college and university."

508. RIDGLEY, DOUGLAS C. "Some Possibilities for Field Work in Elementary Geography," *Journal of Geography*, XXXIV (April, 1935), 161-68.

Describes types of geographic field work in the home community which may be carried on successfully with young children.

509. SHANNON, J. R. "A Teacher Self-Analysis Sheet in Elementary Geography," *Journal of Geography*, XXXIII (December, 1934), 346-54.

Presents specific questions for the teacher to ask himself in analyzing his own viewpoint and methods.

510. SNEDAKER, MABEL. "Geography in New Books for Children," *Midland Schools*, XLIX (February, 1935), 182-83.

Illustrates types of experiences with specific peoples and places which recent literature for children contributes to geographic work.

511. WHITAKER, RUSSELL. "The Selection of Pictures for the Study of Regional Geography," *Wisconsin Journal of Education*, LXVII (February, 1935), 273-74.

Stresses necessity of discrimination in the use of pictures.

Educational Writings

REVIEWS AND BOOK NOTES

Modern education and the past.—The heading given this review could well be the title of the volume under consideration.¹ The book adds substantially to the literature of the history of education. It is a stout book, with numerous helpful illustrations and useful references and readings for further study. Throughout, the authors seek to show that modern educational reform has its roots in the past. The book reaches back to the beginnings of schools in Europe, tells of the work of the Greeks and the Romans, discusses the "Nordic Revolt and Reconstruction" (the Reformation), and moves down briskly through the centuries. Considerable space is given to Protestant school reforms; to the Catholic Reformation and education; to educational problems in the seventeenth century; to the work of Locke and of Rousseau, who is here called "the Copernicus of modern civilization"; to the German educational reformers in the eighteenth century; to American education in the eighteenth and the nineteenth centuries; to the rise of national systems of education in Europe; to the development of free schools in the United States; to the development of method (the work of Pestalozzi, Herbart, Froebel, G. Stanley Hall, and John Dewey); and to recent developments in elementary education, secondary education, and the junior college. The book ends with a discussion, more or less philosophical in nature, on "Reflections on Four Centuries of Development." This concluding chapter is the most abstruse and recondite of many otherwise clear chapters in the book. Nevertheless, the final sentence in the book reflects again what seems to be the honest purpose of the whole work—to give emphasis to the growing importance of a real science of education: "Today, the world is alive to the importance of a thorough science of education, and educators are striving to attain it" (p. 897). Strangely, however, the work of Thorndike is not given any notice in the book.

The authors, both professors of the history and philosophy of education in the University of Texas, have long been students of these subjects, and much useful work has come from their pens. The present work will also prove to be useful. The book may seem a trifle disappointing to those students who may have been led by the title to expect a less conventional account of the develop-

¹ Frederick Eby and Charles Flinn Arrowood, *The Development of Modern Education: In Theory, Organization, and Practice*. New York: Prentice-Hall, Inc., 1934. Pp. xxiv+922. \$3.50.

ment of modern education, but the reviewer should hasten to add that the book aims to be of value for "professional training" without minimizing its importance for "general culture." This aim is definitely avowed in the Preface. Emphasis is also placed on the belief of the authors that "the student of educational science will find the historical method of approaching his problems to be an essential one" (p. ix). This statement could well have been strengthened by adding that such an approach is imperative.

This examination of the development of education in the past, and especially since the sixteenth century, is another example of the efforts made during the recent and present period of confusion and doubt in the world to invoke history in explanation of conditions of the present. Professors Eby and Arrowood would doubtless heartily agree with Vives, one of the great thinkers of the sixteenth century, that without history "no one could know his own rights or those of another or how to maintain them" and that history serves to transfer to children "the advantages of old men; where history is absent, old men are as children" (Foster Watson, *Vives: On Education*, p. 231. Cambridge, England: Cambridge University Press, 1913).

Referring again, however, to the concluding sentence in the book, the reviewer would ask: Is a "thorough science of education" what the world so sorely needs, even if such a science were possible? The question is not asked in criticism of the book, which is, in general, creditable and represents much sincere work and thought. The book merely provides a fresh opportunity to ask the question, which is not academic but vital and real. Not all the promises of science are fulfilled, and some of those promises are definitely unfulfilled. History is not a competitor of science but among its strongest allies; and the history of education, especially during the recent hard period, serves to show the comprehensiveness of education. Without it the so-called "science of education" could not have gone forward. If the scientific study of education has in recent times been put in the position of questioning the value of a knowledge of the past, one must say that during the past decade widened scientific knowledge has increased rather than lessened the demand for a study of the social, economic, political, and scientific past.

Eby and Arrowood's chapter on Rousseau is excellent, and so is that on Pestalozzi. The chapter on the building of the American school system is a good summary. The chapter on American educational reformers during the past half-century discusses four Americans who "have in a special way affected the development of educational thought" (p. 840), namely, Parker, Harris, Hall, and Dewey. Thorndike, Eliot, Harper, and Gilman are not here discussed. Elsewhere in the book brief notice is given to all these men, except Thorndike, whose name does not appear in the volume.

EDGAR W. KNIGHT

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Social-science teachers take a look at their own work.—Unusual significance attaches to the volume under review² because of the important governmental position now held by one of its authors, Dr. Tugwell. While his part of the book was written before he accepted his position in the Department of Agriculture, unusual weight attaches to his views.

There are five main divisions of the book: (1) "Social Objectives in Education," by Rexford G. Tugwell; (2) "Social Objectives in the American College," by Leon H. Keyserling; (3) "Economics in the College," by Thomas C. Blaisdell, Jr.; (4) "History in the College," by Charles Woolsey Cole; and (5) "Political Science in the College," by Joseph McGoldrick.

In the first section the general social objectives in education are analyzed with a clarity and a richness of illustration which characterize Tugwell's writings. The reasons why our traditional attitude of *laissez faire* does not work are set forth without passion but with vivid clearness. The place and the possible extent of planning are then discussed with special reference to the part which schools and colleges must necessarily play in such planning. Altogether, this treatment of social objectives in education is most stimulating and helpful.

With the background of this discussion of social objectives, the four co-authors then discuss the application of these objectives to the several aspects of education. Keyserling gives an admirable discussion of the traditions of a liberal education and stresses particularly the need of reorganization of the social sciences as a part of liberal education. There is included in this section a brief résumé of a few of the important experiments in reorganization of the study of the social sciences now being carried on in American colleges and universities.

The more detailed treatments of economics, history, and political science which follow the two general treatments by Tugwell and Keyserling constitute, on the whole, a searching criticism of these three academic departments. Not always do the authors succeed in keeping their discussions addressed to their respective topics. They wander off into discussion of economics, history, and political science as such rather than concentrating on the problems which the colleges face in organizing effective courses in these departments. Nevertheless, teachers in these several fields will find the discussions helpful.

FRED J. KELLY

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What has research accomplished in spelling?—Substantial contributions to the literature in the field of spelling are appearing in this country at the rate of about twenty-five a year. One hundred contributions of this type may easily justify a new inventory and interpretation, and this figure represents precisely the in-

² *Redirecting Education*: Vol. I, The United States. Edited by Rexford G. Tugwell and Leon H. Keyserling. New York: Columbia University Press, 1934. Pp. x+274. \$3.00.

terval between the appearance of an earlier overview of the field by the reviewer (*How To Teach Spelling*. Dansville, New York: F. A. Owen Publishing Company, 1930) and the latest by Foran.^{*} But these dull figures do not adequately set forth the situation. The earlier book was controversial. It aimed to identify and spread attention to the major problems in the field and, at the same time, to combat certain views on fundamentals regarded as fallacious. It did not aim to etch the picture in detail, a thing which Foran has done in timely and telling fashion.

To build a review on nothing more substantial than the inscription on the jacket of a book is either a vicious practice or a questionable art. To build it on a complete communion with the contents is an unusual stroke of virtue in violation of all the rules of the union, the conventions of the craft. Real brilliance obviously enables some of our colleagues, after the manner of Macaulay, to perceive what the page on the right hand doeth as they read the left, but their number is not legion and their gift is rare. With more tardy discernment, the reviewer has crawled into every crack and cranny of this book searching for educational heresies. His reward? Only to come on conclusions, for the most part, that he would describe as eminently sane because of their agreement with his own.

The book comprises sixteen chapters, covering, in order, such topics as aims, vocabulary, grading and grouping words, amount of instruction, general methods, presentation of words, errors, transfer, rules, motivation, supervision, measurement, ability, disability, and remedial instruction. The discussion is both expository and critical. It clearly summarizes the findings of important objective studies on each of the topics, avoids irksomeness by stressing essentials, indicates points of strength and weakness in investigations, and leaves the reader with carefully considered conclusions. The amount of quantitative data may be inferred from the fact that fifty-four well-selected tables appear in the book.

There is space for a few of the author's conclusions on fundamental problems. He believes that, in the selection of the spelling vocabulary, "undue emphasis on adults' writing needs may interfere seriously with the preparation of children for adult life" (p. 25); that gradation of words should proceed "according to children's experience" in the use of words (p. 36); that phonetic grouping is justified; that a minimal vocabulary of about four thousand words is desirable; that investigations "warrant the use of the test-study method from Grade IV upwards and the gradual introduction of this method in the earlier grades" (p. 73); that "there is no justification for presenting words in divided form in spellers" (p. 89); similarly, that "hard spots" should not be marked in word lists; yet, to the degree that there is concentration of errors in a word, it may be expected that "a substantial improvement in the spelling of the word will be forthcoming

^{*} Thomas George Foran, *The Psychology and Teaching of Spelling*. Washington: Catholic Education Press, 1934. Pp. xii+234.

from special attention to the cause of the most common misspelling" (p. 107); that, since children generalize anyhow, some guidance of the process should be provided, including the judicious use of rules; that emphasis in instruction should be placed on visual perception; that the theory of special disability can be overdone; and that "much remedial teaching is nothing more than a systematic endeavor to compensate for the faults of earlier instruction" (p. 220).

Of special value are the chapters on transfer of training and the use of rules, for investigators are just now behaving as if they were determined to have a showdown on the problem of generalization in spelling. They recognize that English spelling is a jungle, but they also recognize a reign of law in selected areas. There are groups of words that follow formulas. Since most learners will generalize anyway, what about instructional guidance in the discovery and use of these formulas? Everyone interested in spelling awaits an experimental demonstration of the formulas to use, the manner of their use, and the degree of their effectiveness.

The substance of the book is better than its style. Occasionally the writing is repetitive. Naturally, also, statements are found, like the one to the effect that "there is no motivation without competition" (p. 155), to which adherence is denied. The passage (p. 190) referring to Carmen's study would be more in keeping with the facts if the reader were left with the impression that Carmen was no gentleman. These, however, are only details that demonstrate again the obvious impossibility of perfection.

The book represents a thorough canvass and analysis of scientific sources, reflects fundamental problems in its organization, and presents a body of conclusions safely moored to a factual basis. It is recommended to everyone who desires acquaintance with the contributions that educational science has made toward the solution of problems in the teaching of spelling.

FREDERICK S. BREED

Aligning the methods of teaching science with the natural process of learning.—The authors of *Science in the New Education*² proceed from a brief overview of fundamental trends in school philosophy and practice to a discussion of science education. In this brief overview they point to a growing tendency to shift from a subject-matter or academic viewpoint to a psychological or child viewpoint. This tendency is evidenced by the increased attention that is being given to the everyday problems of life, the higher degree of emphasis that is being placed on the development of mental aggressiveness, and the expanding interest of teachers in ways and means of utilizing the drives for learning which reside in children themselves.

In their discussion of science education the authors present (1) the historical trend of methods used in teaching science, (2) the studies made of children's

² S. R. Slavson and Robert K. Speer, *Science in the New Education: As Applied to the Elementary School*. New York: Prentice-Hall, Inc., 1934. Pp. xii+396. \$2.50.

scientific interests, (3) the individual and the social objectives, and (4) the current practices of teaching. These topics are presented in a way that the recommendations for improvement which they suggest appear to the reader much as though they arose from self-evident truths.

Throughout the work the authors stress the fact that in the art of teaching elementary science depends heavily on how we understand the child as a whole—mind and body. In the section on pedagogical trends it is pointed out that the methods of recitation and drill call on the child for mental activity alone, are slowly giving way to laboratory methods, which require mental activity and physical activity.

The section on children's scientific interests places a stamp on the questionnaire method of attempting to discover and determine the child's interests in science and suggests that a study of the occupations of children would indicate, far better than do any other method, what their real interests are in this field. This section also clearly indicates that these two very different methods of studying science are likely to lead to contradictory conclusions regarding children's interests in biological or physical phenomena. It is even hinted that the child's interest in biological phenomena in nature-study may be due more to the child's own interests than to the native interests of children.

The section on objectives departs from the beaten path of the child's own objectives in his science work. These objectives are the urge to satisfy curiosity, the desire to be the cause, and the desire to do something elusive. As can readily be seen, the authors "to employ the physical and psychological makeup of the child in determining method and approach" (p. 137). These individual objectives are presented as a foundation upon which to develop in the pupil the traits.

The section on current practices makes it clear that some progress has been made in the direction of increasing the child's participation in learning. The authors call attention to a number of methods, such as the unit method, which favor a decrease in the teacher's role in learning and an increase in the pupil's effort to learn. They point out that this change sounds the death knell for the teacher's job as they see the teacher becoming more professional and less a person who is to him much more concerned with children and their inner problems than the world and orient themselves in life and much less preoccupied with more or less isolated facts that the children remember or the mass of facts over specific skills.

In the final section of the work the authors present, in connection with the learning procedure evolved from many years of study and experience with young pupils. The chief characteristic of this procedure is that the pupils are led, through problems and activities stimulate

ment, to discover things for themselves. They first discover facts and information and, second, the need for, and the value of, such information. This procedure, which the authors call the "search-discovery method," assigns secondary importance to the acquisition of information and primary importance to the process and the activity which result in the development of personality as a unit-whole.

The suggestions in the final chapters for improving the teaching of science have that ring of the practical in education which arises only from close contact with children under ordinary classroom conditions. Any forward-looking teacher of either elementary-school or junior high school science is almost certain to find that his own experiences and observations check in an interesting and challenging way with those of the authors.

R. R. SPAFFORD

DIRECTOR OF SCIENCE, TULSA PUBLIC SCHOOLS

A pictorial portrayal of a progressive school.—Claire T. Zyve has recently published a little volume¹ that shows very aptly the attitude of the child in a modern school. This charming book pictures, through the use of photographs and brief comment, the children of the Fox Meadow School, Scarsdale, New York, singing, bartering, investigating indoors and outdoors, planning, solving problems, building, co-operating, expressing with joy and abandon and with earnestness and concentration. The reader gains a feeling that he is seeing children growing mentally, socially, and physically through the activities in which they are engaged.

Teachers and parents will find portrayed here the philosophy (if philosophy can be portrayed, and apparently it can) of the new school, in which the child has definite worth-while purposes, in which he shares responsibilities, in which he grows through self-activity, and in which he accomplishes worth-while results.

The end pages, picturing dozens of children's faces—animated, interested, amused—are an inspiration.

The book will prove valuable to any adult living with children, for the spirit of the whole enterprise is well expressed in the little volume of pictures of children going "willingly to school."

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Measurements in physical education.—Achievement tests of various types have been used in physical education for many years, but the standards of performance in these tests have been based largely on the opinion of experts in the field. Although these arbitrary standards have been of value in the absence of more scientific scales, progress in the field should not be based on opinion when

¹ *Willingly to School*. Produced by the Staff of the Fox Meadow School under the direction of Claire T. Zyve. New York: Round Table Press, 1934. Pp. 108. \$3.00.

it is possible to have scientific measurements. During the past few years many reports based on actual performance have been made of attempts to construct achievement scales in physical-education activities. Although most of this work has been commendable, it was not done on a scale sufficiently large to assure uniform methods and units of measurement in a number of activities. This lack of uniformity prohibited the comparison of performances. Recently, however, there has been published a set of tests and achievement scales for a large number of activities.¹ These scales are based on the performance records of more than 79,000 boys and girls enrolled in the elementary schools and the junior high schools of California.

Testing in physical-education activities has been handicapped by a lack of methods of pupil classification which would assure fairness in the evaluation of performance scores. This book presents a classification scheme based on factors which determine physical capacity and which the individual pupil cannot quickly and wilfully modify. A combination of height, weight, and age is used to place pupils in one of eight classes. This procedure assures fairness in competition by equalizing the general physical capacities of pupils. An explanation is given of the classification methods, together with sample charts which minimize the work of classification.

The tests for girls are base-running; basketball throw for distance; basketball throw for goal; hobble race; jump and reach; playground baseball throw for accuracy; playground baseball throw for distance; potato race; run and catch; forty-, fifty-, and sixty-yard dash; soccer dribble; soccer kick for distance; soccer place kick for accuracy; soccer throw-in for distance; standing broad hop; standing broad step; standing leap and jump; and standing three hops. The tests for boys are the same as those for girls plus ball-put; basketball throw for goal (special event); pull-up; push-up; seventy-five-yard dash; running broad hop; running broad jump; running high jump; standing broad jump; standing double broad jump; and standing hop, step, and jump. Explicit instructions are given for administering each test. The equipment needed, the marking of areas, and standardized methods of procedure are explained in detail.

An achievement scale is included for each test. These scales were based on the performances of from 1,060 to 2,400 pupils in each event for both boys and girls. Between 130 and 525 performance records were used for developing the scales for each classification in each event. A variation of the T-scale was used in developing the scale, a procedure which recognizes the increased difficulty in improvement when the upper ranges of performance are reached. All the scales were so set up that the score of 50 is the performance level at the mean or average, the score of 100 is at three standard deviations above the mean, and the score of 0 is at three standard deviations below the mean. Increments for each increase in score were computed by dividing three times the standard deviation

¹ N. P. Neilson and Frederick W. Cozens, *Achievement Scales in Physical Education Activities: For Boys and Girls in Elementary and Junior High Schools*. New York: A. S. Barnes & Co., Inc., 1934. Pp. x+172. \$1.60.

by 50. Each scale has been constructed so that a given score on one has the same relative value as a given score on another. This arrangement makes possible the comparison of ability in different events and the averaging of scores in the various events to give a score of total average achievement.

Certain combinations of the tests are suggested to encourage the development of all-round ability. Some of these are the pentathlon, consisting of five events, and the decathlon, consisting of ten events. The tests making up these groups are selected to measure ability in such fundamental elements as running, kicking, jumping, pulling, pushing, and catching.

The materials in this book will be of increasing value to the field of physical education. The authors have drawn together the loose ends in achievement scales and presented a study scientifically sound and based on an unusually large number of cases. Certain improvements may be made in the scales, for it will probably be found that the statistical setting of values, particularly in the upper ranges of performance, does not assign the proper evaluation to improvement in ability when actual difficulty in performance is considered. The book is well organized, and it presents a timely contribution to the field of physical education.

LESLIE W. IRWIN

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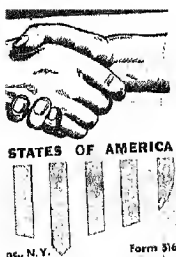
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THE UNIVERSITY OF CHICAGO
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THE ELEMENTARY SCHOOL JOURNAL

VOLUME XXXVI NOVEMBER 1935

NUMBER 3

Educational News and Editorial Comment

SCHOOL ATTENDANCE IN THE UNITED STATES

Despite the fact that compulsory school attendance statutes are in force in all the states of the Union, the number of children of school age who are not in regular school attendance is still surprisingly large. The magnitude of the problem of non-attendance is indicated by the following paragraphs quoted from a recent bulletin of the United States Office of Education entitled *Compulsory School Attendance Laws and Their Administration* (Bulletin Number 4, 1935).

The ideal of having all the children of elementary- and secondary-school age (6 to 17, inclusive) attend school has not been attained. According to the 1930 United States Census, 4,173,951, or 14.3 per cent, of the 29,066,072 children 6 to 17 years of age were not attending school. Of the number not attending school, 1,658,965, or 39.7 per cent, were of elementary-school age (6 to 13, inclusive), and 2,514,986, or 60.3 per cent, were of high-school age (14 to 17, inclusive).

The foregoing figures, which show the total number of children 6 to 17 years of age not in school at all, do not present the entire picture of the problem of school attendance since they do not take into account the average daily attendance of those who were enrolled. Considering attendance in relation to enrolment in the public schools 4,413,129, or 17.2 per cent, of the 25,678,015 children enrolled were absent each day. Adding this number to the number of children

not in school at all, the grand total number of children not in school on any one day during the school term was 8,587,080. This figure, however, is only approximate, since the enrolments and attendance in private and parochial schools are not included, and since some of the children included in the average daily attendance figures are 5 years of age and some are 18 or more years of age, but it is plainly evident that a huge army of children are out of school each day—in round numbers 8,500,000, or approximately 27.5 per cent, of the school population 6 to 17 years of age.

There are thus evidently two parts to the problem of school attendance—one is that of enrolling all the children of elementary- and secondary-school age, and the other is that of keeping those enrolled in regular attendance.

The first-named problem has been solved in large part for children of compulsory school attendance age. Of the total number of children of the usual absolute compulsory-attendance age, that is, the age where very few exemptions are allowed (7 to 13, inclusive), 95.3 per cent of the total number of children of this age group were enrolled in schools, and 88.8 per cent of the children 14 and 15 years of age who are usually subject to the compulsory-attendance laws but who may be exempted for reasons in addition to those provided for children 7 to 13 years of age were attending school, while only 66.3 per cent of the children 6 years of age and only 57.3 per cent of those 16 and 17 years of age were enrolled. . . .

The other phase of the attendance problem is that of keeping the children enrolled in regular attendance. Of course, perfect attendance cannot be expected of every child enrolled, but there is, nevertheless, the problem of unnecessary absences. In every community there are some parents who will keep their children out of school for a day or two at a time to assist with chores and with farm work. Data are not available to show for the entire country how many pupils are unlawfully absent, but that many children are absent from school without lawful excuses is evident according to data compiled by the Pennsylvania State Department of Public Instruction (*Keeping in Touch with the Schools*, pp. 8, 11. Statistical Research Studies, April, 1934, No. 7). In 1933 the number of sessions of absence in that state amounted to 36,861,941. Of this number 1,731,631 were unexcused. There were in that year 57,409 pupils, or 2.8 per cent, of the total enrolment unlawfully absent on first offense and 24,412, or 1.2 per cent, of the enrolment unlawfully absent on the second offense. If these percentages of unlawful absences may be regarded as average, the total number of unlawful absences for the first offense in the country as a whole amounts to 735,712 and for the second offense to 315,305.

During the past two decades there has, however, been a marked improvement in school attendance. We quote again from the Office of Education bulletin.

Although the ideal of having every child of elementary- and secondary-school age, and especially all children from 7 to 16 years of age, attend school has not

been realized, the percentage of such children enrolled in school has been steadily increasing, and attendance on the part of those enrolled has greatly improved. [Table I] shows by age groups for the entire country the per cent of children attending school in 1910 and in 1930.

No data are available to show by ages the increase in regularity of attendance on the part of the children enrolled, but the per cent of public-school children enrolled, attending each day, increased from 72.1 in 1910 to 82.8 in 1930 and to 84.7 per cent in 1932.

TABLE I

Age	1910	1930
5.....	17.0	20.0
6.....	52.1	66.3
7 to 13.....	86.1	95.3
14 and 15.....	75.0	88.8
16 and 17.....	43.1	57.3
18 to 20.....	15.2	21.4

Changes in the statutes during the past two decades with respect to school-attendance requirements are summarized as follows:

In only two states is the minimum compulsory school attendance age placed at six years. These states are New Mexico and Ohio. The minimum compulsory attendance age in thirty states is seven years, and in sixteen states it is eight years. Of the forty-two states that had compulsory attendance laws in 1914, none had a minimum age of six years, sixteen had a minimum age of seven years, twenty-five a minimum age of eight years, and one had a minimum age of nine years.

The maximum compulsory attendance age in 1934 was less than sixteen years in only six states, sixteen years in thirty-one states, seventeen in six states, and eighteen in five states. In 1914, twenty-two of the forty-two states having compulsory attendance laws placed the maximum compulsory attendance age at less than sixteen years; nineteen at sixteen years; and only one at eighteen years. [Table II] shows for 1914 and 1934 the minimum and maximum compulsory attendance ages for full-time schools and the number of states having each of the ages indicated.

There has been a steady increase in the number of years of required school attendance as well as an increase in the amount of attendance required each year.

The number of years of school attendance required varies from six years in Georgia, South Carolina, and Texas to twelve years in Ohio. The usual number of years' attendance required is nine; ten states require eight years, and twenty-two require nine years. (Texas required nine years after May 6, 1935.)

The tendency has been to increase the number of years of required attendance. Of the states that had compulsory attendance laws in 1914, seven required children to attend school for nine years. In 1914, sixteen states required at-

TABLE II

MINIMUM COMPULSORY ATTENDANCE AGE	NUMBER OF STATES		MAXIMUM COMPULSORY ATTENDANCE AGE	NUMBER OF STATES	
	1914	1934		1914	1934
6.....	0	2	12.....	3	0
7.....	16	30	14.....	10	5
8.....	25	16	15.....	9	1
9.....	1	0	16.....	19	31
			17.....	0	6
			18.....	1	5

tendance for less than eight years and six had no attendance laws; in 1934, only five states required less than eight years. [Table III] shows for 1914 and 1934 the number of years' attendance required and the number of states requiring the years specified.

TABLE III

NUMBER OF YEARS' ATTENDANCE REQUIRED	NUMBER OF STATES	
	1914	1934
0.....	6	0
4.....	2	0
5.....	1	0
6.....	4	3
7.....	9	2
8.....	18	10
9.....	7	22
10.....	1	9
11.....	0	1
12.....	0	1

One of the defects in many of the early compulsory school attendance laws was that they did not prescribe a definite time for attending school each year, but instead specified a certain proportion of the time, or a certain number of days, or a certain number of consecutive weeks without stating when the period was to begin. This led to confusion, and it was often difficult to determine when a child had attended the prescribed time. Most states, however, now require attendance for the full period school is in session in the district, which in some districts exceeds the minimum term prescribed by law.

THE RELATION OF THE TEACHER TO THE COMMUNITY

Academic freedom and the function of the school as an instrument of social change have, of late, been much discussed. From time to time in the editorial columns of the *Elementary School Journal*, we have expressed our profound conviction that teachers in school and college alike must be free to seek the truth and to teach it. We have urged, too, the importance of the school as an agency of social direction. We are disposed to regard society as a function of the school rather than to regard the school as a function of society. What is often overlooked, however, is the fact that the mores constitute a vital force which teachers can nowhere escape. The mores may be ill defined, but their sanctions are not difficult to discover.

In a recent issue of the *Journal of Educational Sociology*, Professor Ellsworth Faris, of the University of Chicago, discusses certain sociological principles which govern the relation of the teacher to the community. We quote portions of Professor Faris' article.

We wish our children to be taught those things that we want them to know. We resent being compelled to send our children to teachers who will influence them in ways distasteful to us. Our laws permit a Roman Catholic parent to reject a secular school and choose a religious one so that the instruction imparted may be in accordance with his convictions. In Fascist Italy, in Bolshevik Russia, and in Nazi Germany every teacher must be loyal to an approved philosophy of life and government. This seems very foreign to American ways of thinking, but the difference is very slight and only a matter of degree, due, perhaps, to the relatively peaceful conditions under which we yet live.

Education at least in schools is for the purpose of transmitting to our children our social heritage. The school is a channel, an aqueduct through which our culture is transmitted to those who are to inherit it. Therefore what is taught in the schools is of vital concern to those who have set them up and who pay for carrying them on. If the teachers teach what the community regards as unwholesome, the community cannot avoid protest and opposition.

The content of the teaching is in the hands of professional men and women who are skilled to impart and who are representatives of that level of culture which the community has attained. The teacher is no private individual, free to say or to do anything he may choose according to his whim. He is a trusted public official, standing in some respect *in loco parentis*, trained at public expense, chosen for a public service, and maintained at great financial sacrifice. The mores set limits to what he may appropriately do or say in his capacity as a teacher.

It will probably not be questioned by any sociologist that the mores consti-

tute an impersonal force, never clearly formulated, always appearing as true and right, not open to debate, and not to be consciously and purposefully set up or deliberately modified. The mores change, but slowly and almost unconsciously. To offend against the mores is to insure opposition and conflict. To argue that the mores are untenable and that the people who hold to them are illogical is to confess ignorance of a fundamental sociological truth. A young teacher was interrupted in his remarks by a girl who objected that what he had said contradicted the Bible, and quoted the passage about woman being made from Adam's rib. He answered in a sneering manner: "Nobody believes that stuff any more." His biology was undoubtedly sound, but his knowledge of the sociology of the mores was defective. He was sent to Coventry for the rest of the year and not asked to teach any more.

The question of the freedom of the teacher and his obligation to the community is one aspect of the question of the relation of the individual to society. Even the university research professor is not an isolated individual responsible only to himself. He is a favored and fortunate appointee, subsidized financially so that he need do no economically productive labor, and permitted to subsist on the surplus of the work of other men. His very freedom is a gift of society, a society which trusts him and expects some return on the investment they have made in training and sustaining him.

For the individual apart from society is a meaningless abstraction. Human life is always essentially dramatic in the sense that we are assigned to rôles which we are to play after the manner of characters on the stage. The rôle of a teacher is none the less a rôle because the lines are not written out in detail and formally agreed to, or the details of behavior minutely prescribed. As a member of the school system there are obligations and duties as well as rights of self-expression and freedom. He who keeps in mind that he is the product of an institution and the beneficiary of society will be able to subordinate his private notions, however dear, to the public good and the public peace. However informal the expectation may be, the prestige of the office is a public trust.

Nor does this principle imply any danger to truth nor any disloyalty which might be involved in its suppression. For truth, if it is fully known, can be proved. And if it is fully proved, there is small danger that it will be rejected. Not truth, but unproved and unprovable opinion is the usual cause of conflict. And we must confess that in social science the body of demonstrated truth is much smaller than the total of untested opinions. Those who are most zealous in the cause of academic freedom could do the cause no greater service than to insist on the validity of the distinction.

The relation of the teacher to his community is, therefore, that of a representative whose function it is to induct the young into the social heritage which the community values. He need not be an average member, indeed, he may well be somewhat in advance of those who have chosen him. But he will not wisely scorn the mores. To do so is to invite trouble and to display at the same time an unfamiliarity with a sound sociological principle.

A NOTABLE SERIES OF PAMPHLETS ON CONTEMPORARY SOCIAL PROBLEMS

Adult education in this country is faced with the necessity of defining its purposes and of organizing its instructional content. The essential goals of adult education are both personal and social.

On the personal side, individuals will have to be taught to engage in activities from which they derive wholesome satisfactions. These activities will, in the nature of the case, be extremely varied, covering in fact practically the whole range of human interests. Moreover, there will always be a large number of persons in need of vocational education or re-education. Whether or not technological advance in the long run displaces labor, it seems clear that inventions and efficient management create pools of at least temporary unemployment and that many persons will find it necessary to adjust themselves to new jobs under changed conditions. Society, through its agencies of adult education, can scarcely escape the responsibility of assisting these individuals in making the necessary readjustments.

We do not underestimate the importance of the contributions which adult education can make to personal happiness and well-being, but, after all, the most significant contributions of adult education will be social rather than personal. That is to say, the most essential objective is to cultivate in adults an understanding of the workings of our social arrangements. In a society characterized by swift social movements and by shifting social policies, the diffusion of social intelligence becomes imperative if representative institutions are to survive.

The cultivation of social understanding among the adult members of society requires the development of adequate instructional material in the social sciences. The kind of instructional material that is needed is admirably illustrated by a series of pamphlets recently published by the University of Chicago Press under the general title "American Primers." The pamphlets were prepared under a grant from the General Education Board to the American Council on Education. They are designed "to meet the needs of school classes, adult-education courses, and workers' groups for readable materials in the social sciences." They represent an attempt to present a scientific but non-technical discussion of current issues in

economics, politics, and sociology. The authors of these pamphlets have accomplished their purpose admirably. They have succeeded in discussing complicated social issues in a style that is simple, direct, interesting, and colorful. One can scarcely read these pamphlets without being convinced that complex social issues can be made intelligible to members of the adult population generally.

The high professional standing of the authors of these pamphlets insures their accuracy and fairness. The editor of the series is Percy W. Bidwell, of the University of Buffalo. The titles and authors are as follows: *Youth in the Depression*, Kingsley Davis, professor of sociology, Smith College; *Strikes*, Joseph J. Senturia, formerly assistant editor of the *Encyclopedia of the Social Sciences*; *Friends or Enemies?* Julius W. Pratt, professor of history at the University of Buffalo; *Money*, Marc Rose, editor of *Business Week*, and Roman L. Horne, formerly professor of economics at the University of Buffalo, now with the Agricultural Adjustment Administration at Washington; *Crime*, Nathaniel Cantor, chairman of the Committee on Criminal Law of the American Prison Association and a member of the faculty of the University of Buffalo; *Jobs or the Dole?* Neal B. DeNood, formerly a member of the faculty at Harvard University and now with the Works Progress Administration in Massachusetts; *Business and Government*, John C. Crighton, formerly a member of the faculty at Lynchburg College, and Joseph J. Senturia; *The Farm Business*, Roman L. Horne; and *You and Machines*, William F. Ogburn, professor of sociology at the University of Chicago.

PENNSYLVANIA CURRICULUM STUDIES

The Department of Public Instruction of Pennsylvania is undertaking the publication of a series of bulletins on the curriculum of the elementary and the junior high schools. It is not intended that the material in these bulletins should constitute a course of study to be followed in any particular school; the material is designed rather to aid teachers in developing courses of study. The most recent bulletin is entitled *Geographic Education in Elementary and Junior High Schools* (Bulletin 91). Suggestions are made for the development of a course of study from the fourth to the eighth year, inclusive. The major objectives of geography study for each year

are discussed in some detail; numerous suggestions are made for the development of units; and there is included an extensive bibliography covering the work of each year.

Other bulletins to be published at an early date will bear the following titles: *Suggestions for Developing Guidance Practices in Secondary Schools*; *Organization and Administration of Extension Centers, Schools and Classes*; *Course of Study in Bookkeeping for Senior High Schools*; *Organization and Administration of Special Education Classes for the Orthogenic Backward*; *Parent Education*; *The Use of Radio in Developing Instructional Programs*; and *Highway Safety*.

HERE AND THERE IN SCHOOL ADMINISTRATION

A new report card in Detroit.—A recent issue of the *Detroit Educational News* calls attention to the adoption of a new report card for pupils in the elementary grades of the Detroit schools. The card calls for a report on such qualities of citizenship as adaptability, co-operation, initiative, reliability, and self-control. If a pupil is failing to develop any of these qualities, a check is placed in the designated place; if the pupil's efforts are acceptable, no mark is entered on the card. Another innovation is the elimination of definite scholarship marks, such as A, B, and C, and the substitution therefor of the marks of E (excellent), S (satisfactory), and U (unsatisfactory).

Minneapolis adopts the cumulative-record card.—Superintendent C. R. Reed, of Minneapolis, through a committee appointed more than a year ago, has developed a new cumulative-record card. The *School Bulletin* of Minneapolis reports that the purpose of the committee was to devise "a system of records that would help teachers to individualize instruction, to consider the growth a child makes as more important than grade standards, and to make personality development the real goal of the schools." The new record system makes it possible to enter on one card information about a child's family, his health, his ability as shown by tests, his progress in school subjects, and his personality.

A new organization in the early grades in New York City.—According to the *New York Sun*, "Unit promotions" is the official designa-

tion of a significant experiment recently initiated in a number of elementary schools in New York City. The purpose of the experiment is to reduce non-promotion in the primary grades. In approximately fifty elementary schools there will be neither advancement nor retardation in the primary grades. Pupils will be kept under one teacher and in one group during the kindergarten and the first two years of the regular school work. At the end of three years the pupils' ability to advance to higher grades will be determined. The experiment is said to be based on the observation that many pupils in the lower grades fail to adjust themselves to school life, not because of lack of innate ability, but because they find the break between home and school too abrupt. Whether or not this explanation be the correct one, it is a fact that failure in the New York schools, as in other cities, is highest in the early grades. During the past year, for example, only 89 per cent of the pupils of Grade 1 A were promoted. In Grades 1 B and 2 A the percentage was 93, while in the upper grades it was 95 and above.

Good school publicity in Indianapolis.—The Indianapolis Federation of Public School Teachers has published a pamphlet which bears the title *The Indianapolis Public Schools and Taxes*. The purpose of the pamphlet is to make intelligible to citizens generally certain basic facts with respect to the support of the schools of the city. Data on the following issues are presented in simple graphic and tabular form: "Are Property Taxes for Schools Less than They Were?" "How Much Does It Cost To Educate a Child?" "Do Schools Here Cost More than They Used To Cost?" "Do We Pay More for Schools than They Do in Other Cities?" "Are Indianapolis Teachers Paid as Much as Other Teachers?" The pamphlet is an excellent example of the right kind of school publicity.

The survey of the Cincinnati public schools.—The United States Office of Education has completed an extensive survey of the Cincinnati public schools. The survey was undertaken at the request of the Board of Education and the Bureau of Governmental Research of the city of Cincinnati. Sections of the report are devoted to the present program of education; the status of, and provisions for, the teaching staff; the administration of the schools and the services afforded through the superintendent's office; provisions

for housing and equipping the schools; administration of business offices; and the present program of financing the schools. Each chapter in the report describes present practices, evaluates the effectiveness or adequacy of these practices, and makes recommendations for improvement.

The income tax in Pennsylvania.—The monthly bulletin of the State Department of Public Instruction, *Pennsylvania Public Education*, reports that a friendly test suit attacking the constitutionality of Pennsylvania's new graduated income-tax law has been filed by the city solicitor of Philadelphia. It is contended that the statute violates a provision in the constitution which provides that "all taxes shall be uniform, upon the same class of subjects, within the territorial limits of the authority levying the tax." The contention is also being made that the income-tax law is special legislation. A great deal of interest attaches to the decision of the court. If the statute is upheld, twenty-five million dollars derived from the income tax will be made available for school support for the school year 1936-37. Moreover, the decision of the court will be awaited with interest in other states having a similar constitutional provision.

THE SCHOOL MEDICAL SERVICE IN ENGLAND

A recent issue of the London *Times Educational Supplement* carries an account of the development and present status of the school medical service in England. Beginning about 1910 the Medical Department of the Board of Education began a vigorous campaign to induce local education authorities to establish treatment clinics for school children. Inspection revealed that there was urgent need for medical treatment, and grants for this purpose began to be made from the national exchequer. By 1913 local education authorities were maintaining 140 treatment centers in which arrangements were made for the treatment of eyes, ears, nose and throat, teeth, and minor ailments. The World War made Englishmen particularly sensitive to the physical well-being of youth and greatly strengthened the development of treatment centers. The following paragraphs quoted from the *Supplement* summarize the major lines of development of the school health service since 1910.

In comparing conditions in 1910 with the advance in medical work which has been attained today, there is good reason to be cheered by the progress which has been achieved. The little group of 30 treatment centers in 1910 increased to 1,880 in 1933, and the number of local authorities making provision for this work has gone up from 30 to 315. There are today 233 authorities which organize orthopedic treatment. All authorities but three make arrangements for caring for minor ailments, dental defects, and defective vision. Ringworm in many areas has almost disappeared. Open-air schools have multiplied; there are now 146, with provision for 14,699 children. There are today 62 recognized nursery schools with accommodation for 4,933 children. For one school for tuberculous children in 1910 there are now 37. Special schools have more than doubled and now accommodate 57,687 children. Physical training is receiving more attention than at any time in the history of education in this country. A new syllabus dealing with the matter was issued by the Board of Education in 1933 and the opening of Carnegie Hall, the new Physical Training College for men, is likely to have great influence on health work in boys' schools in the future.

Finally it is of interest to compare the sum of £78,000 spent on medical work in the schools in 1910-11 with the cost of the service today. In 1933-34 the net expenditure of local education authorities on medical inspection and treatment, met from grants and rates, was £2,019,073, and no one who has watched the great improvement which has taken place in the physique of school children during the past quarter of a century will grudge this outlay from public funds.

CARING FOR THE CHILD DURING THE SUMMER VACATION

The Child Study Association of America has recently published a pamphlet entitled *Community Programs for Summer Play Schools*. The following paragraphs from this pamphlet indicate the need of more adequate provisions for child welfare during the summer months.

Recognition of summer needs.—Communities have characteristically assumed increasing burdens and responsibilities for keeping children actively occupied in the profitable educational enterprises of "school." The same communities have been almost uniformly indifferent to the fate of their children when the schools were closed for the summer.

We may no longer assume that homes generally are equipped to make adequate use of the children's free time in the summer; nor that the community has discharged its obligation to the children—that is, has provided adequately for its own future—when it has established a school plant with its facilities, when it has installed machinery for compelling attendance over two-thirds or three-fourths of the year, and when it has excluded its children from the shops and factories. The need can be met only by some plan that contemplates eventually serving all children in various ways, and for the whole year.

It should be recognized from the first that the traditional school pattern cannot serve as the basis of future provision for children's summers. A satisfactory program of summer activities will have to yield all the values that various forms of recreation now give. It will include much more of spontaneous and creative activity than is now involved in most summer programs provided for children. And it will be more directly related to the out-of-doors.

In the course of years more and more communities have in fact made provision for the recreation of children during the summer. There are parks and playgrounds. Welfare agencies have made substantial contributions to meet the summer needs of the underprivileged. Commercial camps have grown up to meet the need for organizing and supervising play activities that have important educational possibilities. Many parents have learned to take children to the country or to the shore for recuperation and new experiences. But when we examine the recreational facilities and opportunities available in communities throughout the country, we find them to be woefully inadequate as to the number of children reached, as to the richness and diversity of opportunities, and as to their suitability from the standpoint of child development.

Provisions inadequate.—The Subcommittee on Summer Vacation Activities of the White House Conference estimated a total of five million children of school age cared for by various agencies in the summer time. Figures taken from the *Biennial Survey of Education* of the United States Office of Education show, for 1932, a total enrolment in the public schools of 26,275,441 pupils, out of a population of 32,031,549 in the age groups from five to seventeen. The need then in mere numbers to be served is immense.

Playgrounds and camps represent the typical pursuits, where attention is given to the children's needs for the summer. But playgrounds serve an estimated total of fewer than two million children. And though there is a wide variation as to the daily period covered by attendance at playgrounds, it falls very far short of approximating the bulk of the day for the majority of children reached. The largest estimate of the aggregate number of boys and girls attending camps of all kinds, public and private, in 1930-31 was 1,682,907. This is a sizable number, but over 43 per cent of these young people were visitors to the national parks; and the duration of camp experience for almost all this million and a half was but two weeks or less. The camps of the principal social agencies and private commercial camps reported for that year fewer than 30 per cent of the total, 538,897. . . .

A few children attend summer schools to make up academic work. The number doing school work during the summer is indicated by the fact that the proportion of city day pupils who attend summer sessions is just short of 4 per cent.

A large part of the pamphlet is devoted to a description of what is now being done for the child during the summer by various social agencies. Special attention is given to the summer play school—its origin, program, and organization. The conclusion is reached

that "the play-school type of undertaking lends itself admirably to the utilization of the community's resources in plant, equipment, personnel, and financial means for a comprehensive and varied program of educational activities and experiences adapted to the actual conditions and personality and health of the children, as well as to the time and place."

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THE IMPROVEMENT OF READING AND STUDY HABITS

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READING REQUIRES VARIOUS TYPES OF SKILLS

The tendency to recognize that reading of the work or study type requires certain specific abilities not ordinarily required in reading of the recreatory type has within recent years become marked—so marked that materials for the development of work habits in reading are becoming common even in the elementary schools. Recognition that textbooks in history, geography, science, and arithmetic present special reading difficulties for most children is widespread. McMurry¹ early defined “study” as purposive mental work involved in solving a problem. This conception differentiates the work or study type of reading from that which is involved in merely following a narrative or enjoying the melodic sound of a poem. Yet is it recognized that reading, whatever the purpose of the reader may be, is always a process of interpreting the meaning of the symbols on the printed page? These symbols vary in complexity and in organization. Some pages present patterns of one kind and some of another. Some patterns are easier to interpret than others. Readers differ tremendously in their abilities to interpret the patterns. No matter what kind of instruction is experienced, normal human beings become more mature in their thought-processes as they grow older and patterns of thinking become more and more complex with the years. Nevertheless, there is undoubtedly a tendency to confront children at any given age with types of concepts and with language patterns that are too difficult for them.

In spite of the progress which research has made in unraveling the intricacies of that difficult process called reading, the problem of

¹ F. M. McMurry, *How To Study and Teaching How To Study*, p. 283. Boston: Houghton Mifflin Co., 1909.

reading for the probable thousands of specific purposes which arise in life is yet scarcely understood, let alone solved. Moreover, research has made clear that the vocabularies of history, geography, and science are in many ways markedly different from the vocabulary used in communicating ideas in ordinary living. It naturally follows that, if we are to make any progress in teaching children to study serious subjects, they must learn the vocabularies of these subjects and the patterns or ways of thinking which characterize the subjects. While considerable speculation has been made concerning these problems, research has scarcely scratched the surface.

TYPES OF READING MATERIALS

Studies are needed to discover the possibilities of interesting children in materials not primarily narrative in character. McKee,¹ Gates,² Snyder,³ and others have already shown that well-written factual materials are not necessarily distasteful to pupils. The wide popularity among boys of certain magazines of the popular-science type and the interest shown by girls in magazines dealing with clothes, home life, and the like show that factual reading may well have an important place in life. There is, however, a great distance to go before the majority of children in the elementary school will come to have any feeling other than distaste as they approach the study of history, geography, and science—not to mention arithmetic. One of the most difficult problems that is faced in attempting to develop work habits in reading is the great gulf between what the authors of books think children ought to learn and what children themselves are interested in. This problem is not so serious at the college and the high-school levels on account of the maturity of the pupils (although it may well be serious enough there), but it is very difficult in the middle grades of the elementary school. One of the greatest difficulties is presented because of lack of knowledge of

¹ Paul McKee, " 'Fact' Form and 'Story' Form Reading Matter," *Elementary English Review*, III (January, 1926), 3-8.

² Arthur I. Gates, *Reading for Public School Administrators*, pp. 12-15. New York: Teachers College, Columbia University, 1931.

³ Edwin D. Snyder, "Factual versus Story Material." Unpublished Master's thesis, University of Pittsburgh, 1928. Abstract in *University of Pittsburgh School of Education Journal*, IV (March-April, 1929), 94-96.

what children at the lower grade levels are capable of doing. It is possible also that the verbal type of instruction, common in the elementary school and above, is entirely unsuited to the vast majority of children.

The type of material on which greatest reliance has been commonly placed is the narrative. The narrative, with its time sequence, its action, its dialogue, is an age-old form of discourse, a love for which runs back into prehistoric time. The love for narrative is deeply imbedded in the human heart; yet even a casual examination of life-activities shows that exposition, description, and argumentation also have their places and that the child hears explanations, descriptions, and arguments long before he enters school. Still, by and large, reading narratives is about as far as many readers ever go. A large part of the population read little or nothing else, as numerous surveys show. This fact raises the question of how complex the thinking of the average reader may become and whether the school is not foolishly trying to develop ability to think among those who will never think much and to make scholars out of those who have no aptitude for scholarship. Studies such as Cooper's on the reading habits of a thousand men¹ and Gray and Munroe's investigation of the reading of adults² are not encouraging. The fact remains, however, that the school continues the attempt to teach pupils to read books containing mainly expository matter. The school seems committed to this practice, if it is ever to educate citizens for a democracy, unless it abandons the idea of teaching through books and begins to teach orally, by radio or other mechanical sound-reproduction apparatus, or begins to teach mainly through living and learning directly from life-activities.

RESPONSIBILITY OF THE SCHOOL FOR TEACHING READING AND STUDY HABITS

The improvement of reading and study habits is manifestly a school problem, since few persons ever develop the study habit un-

¹ Elizabeth Eathel Cooper, "An Investigation of the Reading Interests of 1,000 Adult Occupational Workers." Unpublished Doctor's thesis, University of Pittsburgh, 1931.

² William S. Gray and Ruth Munroe, *The Reading Interests and Habits of Adults*. New York: Macmillan Co., 1929.

less they do so in school. As the writer sees it, the school has three functions: (1) to train the future citizen in those social attitudes, informations, habits, and skills which will make him a good citizen; (2) to make as many persons as possible into thoughtful students of life so that there may be numbers of citizens who read thoughtfully, look between the lines, and challenge sharply what they read; and (3) to turn out a few scholars or creative workers in the discovery of new knowledge. Up to the present time the creative workers have often received little aid from the school. As yet the school has not distinguished these functions clearly and has failed to carry out any of them effectively.

The minimum that the school should attempt in teaching reading for practical purposes is to train the girl to read recipes, follow patterns, and do other types of practical reading requiring accuracy of understanding and to give the boy practice in reading announcements and directions, in interpreting working plans and other data needed in the practical work of the world. The writer estimates that the average unskilled worker in a steel mill, for instance, in order to avoid dangers and to do his work, should be able to read at least at the level of the third-grade child. For persons who work with their hands, therefore, we shall probably have to be content with practical kinds of reading at this level. Such people will get their entertainment in other ways than in solitary silent reading.

However, the writer believes that much more can be done to train persons above the lower quartile in intelligence to read thoughtfully for many practical purposes other than the common purpose of amusement; and it is here that he thinks the school has really begun to make progress. The school may go as far as it likes in attempting to make students of the pupils in the upper quartile of intelligence. So far, these persons have largely been left to their own ingenuity in developing effective habits of work.

The problem of the school is, then, to face the fact that one of the chief purposes of teaching how to read and to study is to develop the habits essential for successful performance of these functions rather than to teach facts about any given subject, to develop interests and abilities in fields rather than to attempt factual mastery of these fields. The school cannot teach reading merely as a recreatory

activity and then expect the child to transfer his interest in narrative to the factual reading that is characteristic of many kinds of study. On the other hand, interest in study and in the development of study habits cannot be developed by punitive methods.

BASIC PROBLEMS IN TEACHING PUPILS TO STUDY

There are several problems of a basic character that must be solved if pupils are to study successfully.

1. Thorough investigation must be made of the attitudes, interests, motives, and purposes that may be utilized to induce the child to engage in the study type of reading. Save for history, biography, travel, and fiction, with their narrative structure, little ready-made material for this purpose is available to the vast majority of pupils except that which is found in the textbooks—and teachers are coming to have grave doubts that they have the right materials there.

2. Scientific investigation must determine what types of study procedures and what types of information concerning study and study materials can be developed with pupils at each age level and whether it is economical to try to develop such work habits and interests below the high-school level.

3. Thorough analyses, more thorough than any yet made, must be made of the skills and abilities required for different kinds of reading of the work type. It seems evident that there are basic abilities that are used in practically all study of the reading type but that there are also specific abilities needed in each special field. The ability to interpret maps, graphs, and tables, which is needed in the study of geography, is an illustration of one of these special types of ability. Since, as the writer believes, the patterns of thinking required in different fields differ in many ways, it is necessary to teach the child specifically how to think in each of the special fields, or at least how to utilize the material of the field in thinking. The skills and the abilities needed in study group themselves, in the writer's judgment, under the heads of observation, reading, thinking, language, and construction. A thorough analysis of these skills will furnish a master checking list for the use of curriculum workers and the writers of books, as well as for the use of teachers in the analysis of the causes for their pupils' failures.

4. Investigation must also be made of the study habits and the integrated habit patterns that are of specific value in study. Ways and means must then be devised of training pupils in the effective development of these habits and habit patterns in order that the mind in study may be free to think. Many pupils fail in study today because they have never learned to persevere, to concentrate on the task in hand, to prepare a report on some topic investigated, to read selectively for specific purposes of various kinds, and to enjoy the habit of reading to learn. The types of behavior which are effective in study must be learned economically. It is a frightful waste of a pupil's time to fail to aid him in the development of these habits, but a large number of schools fail at this point.

PRACTICAL MEASURES FOR DEVELOPING STUDY HABITS

Research workers must join with teachers in the study of children's reading and study habits. The classroom is a laboratory in which many of the problems must be worked out. In the meantime, what are the practical measures which may be taken by supervisors and teachers to help pupils to develop good habits of study? In the remainder of this article an attempt will be made to suggest ways in which the problem may be attacked. These suggestions will not be supported by research reference in this article although most of them have ample data back of them.

It is most important that the teacher give attention to the development of specific purposes in all reading of the study type. In recreatory reading this emphasis is not essential since material of this type is ordinarily read for its own sake. Many kinds of material read for study purposes are undeniably interesting and enjoyable in themselves, but it is characteristic of study that the reader is generally reading for a purpose of some kind which the material is to serve. When a person reads a poem or a story, he does not expect to make specific use of the material save to enjoy it. Sometimes he reads history for the same purpose, but the study of history is designed to develop understandings of a type that will be useful in life, such, for instance, as trying to understand the reason for the present interest in old-age pensions and unemployment insurance. Numerous studies have clearly shown that, when pupils read for

specific purposes, they read more effectively. The teacher must discover what specific purposes are usable by children at each age level and in each unit of study.

A great deal can be done to improve reading and study habits by the selection of subject matter. The teacher may avoid those aspects of a subject which are too abstract and are suitable only for adults and may seek for those aspects which are likely to interest children. She must constantly connect what is read with what is known and what has been experienced. It is obvious that the curriculum is still full of many things which fail to affect children because adults have made bad guesses about what children can understand and use. A sure way to make Jack a dull boy is to force him to study about things which have no meaning for him. A great deal of this unnecessary forcing is, of course, avoided when subjects are approached from the problematic point of view or as means of helping the pupil to understand life better. Even where advanced curriculum practices are absent, much can be done by the intelligent teacher to avoid drowning the child's interest in history, geography, and science by forcing the pupil beyond his depth.

There is also a certain technical aspect to the problem of improving reading and study habits, which was suggested earlier in this paper. The teacher who would teach children how to read for study purposes must analyze each group of children as they appear and attempt to discover what abilities they have and what they lack. The writer has in his possession such an analysis made by a classroom teacher. It consists in a record of a careful thinking-through of the attitudes, information, skills, and habits which her pupils seemed to possess or to lack. This analysis was followed by a careful remedial program, which was successful in developing many abilities that were weak and in utilizing those that were strong. This type of thinking is fruitful in giving the teacher a better understanding of the study process. It is comparable to the diagnosis which the able physician makes of his patients.

It is necessary, too, to attempt to interest the pupils in the effectiveness of their own reading and study activities. While study activities are complex, certain of the simpler aspects of study may be brought up when the child is young. He may often show a surpris-

ing insight into his own problems and may learn to work more intelligently if his errors are pointed out to him and he sees the reason for better ways of studying. This procedure is commonly followed in arithmetic when, for instance, a child is shown that adding up and then down is a good method of checking the addition of a long column. In studying geography, the child may well learn that indiscriminate reading is not the best way to master a lesson.

When a teacher has become familiar enough with her pupils to know their interests, powers, capacities, and deficiencies, she must then organize a program of studies which will be both constructive and remedial in character. This program must be constructive because in the long run a purely remedial program would be more or less deadening. There must be an interest in pushing forward as well as in overcoming some of the shortcomings that have appeared in previous work. Each pupil must be made aware of what he needs to do to overcome those practices in which he is ineffective, but at the same time he should have a consuming interest in reading about new subjects and gathering new data for various purposes. Fortunately, many study habits can be learned just as effectively in going forward as in doing over again what has been done before.

If interest in study is to be attained, differentiation of study activities must be provided for. This provision, unfortunately, is not commonly made. The many experiments in directing study have had for their aim the differentiation of instruction in various ways. The great trouble with the early experiments in directing study was found in their major premise that the curriculum as set up must be mastered and that the main problem in directing study was to devise a way of providing for individual differences in rate of learning. The problem is deeper than that. If children are ever to read history, for instance, with any satisfaction, they must have purposes or motives. The absence of purpose, except the extrinsic one of pleasing the parent and the teacher or of getting a high mark, makes the reading of history a dull affair. The remedy would seem to be either to organize history for schools in a manner calculated to arouse the interest of pupils in history itself or to set up motives so vividly meaningful in themselves that pupils will swallow the bitter pill of history in the attempt to satisfy their purposes. A better way

would seem to be to select for the schools those aspects of history which are found to be interesting to children and then to discover the method of organization of these aspects of history which will correspond with the laws of learning as they are known to operate in children. This problem suggests the need for extensive research.

Unfortunately, the busy teacher seems to have to take the material in history, geography, science, and other subjects as it comes. She rarely has the time, the training, or the materials to conduct her teaching of a subject experimentally and to find out those aspects of the subject which appeal to her pupils and those types of materials which the pupils are able to read with some degree of comprehension. It is well known that many pupils are incapable of reading with understanding many of the textbooks which they are asked to study. Not infrequently teachers are forced to teach orally the material which the textbook contains but which the pupils cannot read. It is possible, of course, that American schools have depended entirely too much on the textbook and that a remedy lies in the direction of adopting the European method of oral instruction. This change would, however, require a revolution in methods of teacher training in this country, which does not seem imminent. Many of us cannot escape the belief that the method of directed study and of developing the habits of reading necessary for effective study is, in the long run, the more promising way.

Another practical measure which may be taken by teachers to improve reading and study habits is to give pupils systematic practice in the formation of the definite abilities that are known to be necessary in the study type of reading, such as finding the main points of paragraphs, finding the supporting details, outlining, reproducing ideas, summarizing, preparing oral reports, and preparing written reports. Fortunately, pupils are now being trained in many of these necessary abilities. Textbooks are coming to include practice exercises calculated to develop the pupils' powers to assimilate and retain the ideas gained from informational reading. Workbooks with copious exercise material for this purpose are available. Such materials should be used intelligently to give pupils practice in those abilities in which they show weakness, but the materials should also be used constructively to give practice in the develop-

ment of specific skills and habits. Always such materials should be used as a result of needs shown by study rather than as isolated drills. Just as the skilled physician applies remedies for known defects and prescribes modes of prevention, so the teacher must watch the development of each group of children and provide skilfully for their growth in desirable attitudes, habits, and skills. Practice materials are useful tools which serve the teacher in her attempts to reach these larger purposes, not merely materials to be used for their own sake.

If children are to develop reading and study habits that will definitely function in improving their ability to assimilate ideas, teachers must teach the pupils how to study each subject. The teachers must be as interested in the growth of study habits and the ability to read intelligently the materials of their special fields as in the children's grasp of ideas in those fields. The writer believes that this idea is not widely spread among teachers. Teachers of reading are now coming to accept responsibility for developing the abilities needed in the work or study type of reading, but by far the larger number of teachers of subject matter are still teaching as if they had no responsibility for the reading of the material in their subject fields. The writer has come to believe that, unless a teacher is aware that she is, to a large extent, merely a director of the reading of the material in her field, she is not a good teacher. The obvious remedy is to require all those who teach to become master readers and to know thoroughly the literature on reading and study.

The crux of the whole matter of improving reading and study habits is, then, the necessity for the teacher to realize that reading and study must become vital experiences in the lives of children. Teachers must be much more interested in the study process than they have been; they must understand more clearly how complex a thing study is; and they must get a clearer idea of the abilities needed for successful study. They must come to regard themselves as directors of the study process. They must be as interested in the development and the improvement of study habits as in the imparting of knowledge to children. They must learn that, unless pupils form the habit of reading and studying, they have missed a large part of the purpose of education.

ACHIEVEMENTS OF PUPILS WHO HAVE HAD DOUBLE PROMOTIONS IN ELEMENTARY SCHOOL

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Both teachers and parents are frequently presented with the problem of double promotions for pupils of unusual ability in elementary school. A number of factors must be taken into consideration in determining on a policy of acceleration. Teachers often think only in terms of ability to do school work, but parents are vitally interested in the possible social and vocational results of acceleration as well as in the educational results. In a previous study made by the writer¹ 46 pupils who had been accelerated from one to three semesters in elementary school were compared on the basis of high-school marks with the 110 remaining members of their high-school graduating class. It was found that the accelerated pupils made better marks in high school than their non-accelerated classmates. The pupils of the previous study were graduated from the Michigan City, Indiana, elementary schools in the first and the second semesters of the school year 1925-26.

The study reported in this article was made in the spring of 1935, five years after the previous study. It is an attempt to compare the educational, vocational, and social achievements of the same persons. Since none of the subjects had been accelerated more than three semesters, they could not be considered precocious. The school officials had simply made some attempt to adapt the educational program to their superior abilities.

In the present study it was necessary to use the questionnaire technique. A careful check with the city directory and the telephone book and by means of local inquiries produced addresses for 140 of the 156 graduates. Seventy-five replies to the questionnaire were re-

¹ T. L. Engle, "A Study of the Scholastic Achievements in High School of Pupils Who Have Had Double Promotions in Elementary School," *Elementary School Journal*, XXXI (October, 1930), 132-35.

ceived, twenty-five (twelve boys and thirteen girls) from the accelerated group and fifty (twenty-six boys and twenty-four girls) from the non-accelerated group. While the number of cases is too small to give conclusive data, the general trend of the results is interesting.

EDUCATIONAL AND VOCATIONAL ACHIEVEMENTS

College marks were not available for the present study, but some measures of later educational achievement were obtained from the questionnaire. The data in Table I indicate that more non-accelerated than accelerated girls received additional educational training of some kind. A larger percentage of accelerated than of non-accelerated boys received additional educational training. When both boys and girls are considered, the percentage of accelerated pupils who attended college was larger than the percentage of non-accelerated pupils, and the average length of college attendance was greater for the accelerated group. The percentage of the non-accelerated group who received additional training other than college training was greater than the corresponding percentage of the accelerated group. For both types of training (college and non-college combined) the non-accelerated group had the slightly larger percentage. The number of honors received in college would suggest that the accelerated pupils continued to be superior in educational achievement.

A period of five years following high-school graduation is too short a time to indicate permanent vocational success, and in such economically abnormal days as these a person's achievements in that time probably are even less reliable than usual. Some of the subjects were still in college, some of the girls were married and not engaged in gainful occupations, and some members of the groups were in occupations in which financial achievement could not be measured definitely. Sixteen of the accelerated group and twenty-eight of the non-accelerated group were able to give definite salary figures. The percentages of accelerated boys and girls who were employed were higher than the corresponding percentages of non-accelerated pupils. The non-accelerated group received a median salary slightly higher than the accelerated group. However, the accelerated boys were making higher median salaries than the non-accelerated boys. The opposite was true for the girls, but the difference in the case of the girls was small. The minimum salary and the maximum salary of

the accelerated group were higher than the minimum and the maximum salaries of the non-accelerated group.

TABLE I

EDUCATIONAL AND VOCATIONAL RECORDS FIVE YEARS AFTER HIGH-SCHOOL
GRADUATION OF 25 PERSONS WHO HAD AND 50 PERSONS WHO HAD
NOT BEEN ACCELERATED IN ELEMENTARY SCHOOL

GROUP	Boys		Girls		Both	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
Additional training after high school other than college (art, business college, etc.):						
Accelerated.....	6	50	3	23	9	36
Non-accelerated.....	7	27	14	58	21	42
Attended college (for any time):						
Accelerated.....	8	67	4	31	12	48
Non-accelerated.....	12	46	8	33	20	40
Additional training (college, other than college, or both):						
Accelerated.....	10	83	6	46	16	64
Non-accelerated.....	17	65	18	75	35	70
Average number of months attended college:						
Accelerated.....	24.9	....	29.3	....	26.3	....
Non-accelerated.....	28.5	....	21.8	....	25.8	....
Graduated from college or still attending:						
Accelerated.....	4	50	3	75	7	58
Non-accelerated.....	9	75	3	38	12	60
Average number of honors received in college (Phi Beta Kappa, etc.):						
Accelerated.....	1.3	....	2.5	....	1.7	....
Non-accelerated.....	0.8	....	1.0	....	0.9	....
Graduates gainfully employed or attending school, and married girls:						
Accelerated.....	10	83	11	85	21	84
Non-accelerated.....	20	77	18	75	38	76
Weekly salary range:						
Accelerated (16 replies).....	\$12.00	....	\$10.00	....	\$10.00	....
	to		to		to	
	\$125.00		\$29.75		\$125.00	
Non-accelerated (28 replies).....	\$7.50	....	\$10.00	....	\$7.50	....
	to		to		to	
	\$60.00		\$29.16		\$60.00	
Median weekly salary:						
Accelerated (16 replies).....	\$23.75	....	\$15.90	....	\$17.25	....
Non-accelerated (28 replies).....	\$18.00	....	\$17.00	....	\$17.50	....

SOCIAL ACHIEVEMENTS

It is always difficult to measure social achievements, but some objective data were secured and are summarized in Table II. The ac-

TABLE II

SOCIAL ACHIEVEMENTS FIVE YEARS AFTER HIGH-SCHOOL GRADUATION
OF 25 PERSONS WHO HAD AND 50 PERSONS WHO HAD NOT BEEN
ACCELERATED IN ELEMENTARY SCHOOL

GROUP	Boys		Girls		Both	
	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent
Married:						
Accelerated.	1	8	4	31	5	20
Non-accelerated.	4	15	6	25	10	20
Average number of social groups in which membership was held:						
Accelerated.	1.92	.....	2.54	.....	2.24	.....
Non-accelerated.	1.81	.....	2.17	.....	1.98	.....
Average number of offices held in such groups (each term counted separately):						
Accelerated.	0.58	.....	1.85	.....	1.24	.....
Non-accelerated.	1.54	.....	1.50	.....	1.52	.....
Members of social fraternity or sorority at college:*						
Accelerated.	6	75	3	100	9	82
Non-accelerated.	6	55	3	60	9	56
Average number of social groups at college in which membership was held (Y.M.C.A., dramatic clubs, etc.):						
Accelerated.	0.88	.....	5.00	.....	2.24	.....
Non-accelerated.	1.33	.....	3.00	.....	1.95	.....
Average number of offices held in college in fraternities, clubs, classes, etc. (each term counted separately):						
Accelerated.	0.88	.....	3.25	.....	1.67	.....
Non-accelerated.	0.33	.....	1.87	.....	0.89	.....
Average number of non-athletic extra-curriculum activities en- gaged in at college:						
Accelerated.	0.88	.....	4.75	.....	2.17	.....
Non-accelerated.	1.25	.....	1.57	.....	1.37	.....
Average number of college extra- mural athletics engaged in:						
Accelerated.	0.38	.....	0.25	.....	0.33	.....
Non-accelerated.	1.42	.....	0.00	.....	0.90	.....
Average number of college intra- mural athletics engaged in:						
Accelerated.	1.00	.....	2.50	.....	1.17	.....
Non-accelerated.	1.67	.....	1.71	.....	1.69	.....
Engaged in either or both types of athletics:						
Accelerated.	5	63	2	50	7	58
Non-accelerated.	10	83	4	57	14	74

* One accelerated girl, three non-accelerated girls, and one non-accelerated boy attended colleges having no fraternities or sororities.

celerated boys belonged to more non-college social organizations than did the non-accelerated boys, but the former held fewer offices in the organizations. The accelerated girls belonged to more non-college social organizations and held more offices in these organizations than did the non-accelerated girls. Of those who attended college, the percentages of accelerated boys and girls who belonged to social fraternities and sororities were larger than the percentages of non-accelerated boys and girls. The accelerated boys at college belonged to fewer social groups other than fraternities than did the non-accelerated boys, but the accelerated boys held more offices in the organizations to which they belonged. The accelerated girls at college belonged to more social organizations other than sororities and held more offices in the organizations than the non-accelerated girls. The number of non-athletic extra-curriculum activities participated in by the accelerated boys was smaller than the number participated in by the non-accelerated boys, while the opposite relation was found for the girls. Accelerated boys participated less in both varsity and intramural athletics than did the non-accelerated boys, but the opposite was true for girls.

In summary, then, the accelerated subjects belonged to more social organizations than the non-accelerated subjects. The accelerated boys attending college were not so active socially and in athletics as were the non-accelerated boys, but the accelerated girls were more active than the non-accelerated girls in both these activities.

GENERAL CONCLUSIONS

The data of this study are, of course, too limited to warrant any but the most tentative conclusions. If any conclusions can be drawn from such a limited number of cases, the evidence indicates that some acceleration in elementary school does not handicap a person educationally, vocationally, or socially. However, care should be taken to urge accelerated girls to continue with their superior achievements (considered as further training either in college or in other types of instruction). Accelerated boys, especially those who are going to college, should be encouraged to develop the social sides of their personalities.

A QUICK MEANS FOR DETERMINING A PUPIL'S AGE AT ANY GIVEN DATE

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Teachers and administrators sometimes find it difficult to determine a pupil's age at a given fixed date. Whenever it is necessary to find an intelligence quotient from an intelligence test, a pupil's chronological age must be found to the nearest month. In order to facilitate the computation of chronological age, the writer constructed Table I.

If an intelligence test was given in 1935 between September 1 and 15, inclusive, then the pupil's chronological age can be read from the table. If his birthday is between January and September, the left side of the table is used; if his birthday is between October and December, inclusive, the right side of the table is used. To illustrate, consider the case of a pupil born March 12, 1926. On the left side of the table the row for the birth year of 1926 is found, and the age in years is given in the next column as nine. Following the same row to the month of March, we find the month number is six. Therefore, the pupil is nine years and six months of age. If a pupil was born on November 3, 1926, his age would be determined by going to the birth year of 1926 on the right side of the table and then reading the corresponding age in years for this birth year, namely, eight. Then, following the birth year to the column headed November, we find the age in months is ten. Thus, the pupil's age is eight years and ten months.

If a birthday falls on the sixteenth day of a month or later, the next month is considered the birth month. For example, when a pupil's birthday falls on April 20, the month of May is used in computing the child's age. Therefore, the table gives the chronological age of a pupil to the nearest half-month. This degree of accuracy is as great as is needed for most school records.

A similar table can be constructed to give the age at any given

TABLE I
TABLE FOR DETERMINING A PUPIL'S CHRONOLOGICAL AGE IN SEPTEMBER, 1935

YEAR OF BIRTH	AGE IN YEARS	AGE IN MONTHS IN—												AGE IN YEARS	YEAR OF BIRTH
		Janu- ary	Febru- ary	March	April	May	June	July	August	Septem- ber	October	Novem- ber	Decem- ber		
1935	0	8	7	6	5	4	3	2	1	0	11	10	9	0	1934
1934	1	8	7	6	5	4	3	2	1	0	11	10	9	1	1933
1933	2	8	7	6	5	4	3	2	1	0	11	10	9	2	1932
1932	3	8	7	6	5	4	3	2	1	0	11	10	9	3	1931
1931	4	8	7	6	5	4	3	2	1	0	11	10	9	4	1930
1930	5	8	7	6	5	4	3	2	1	0	11	10	9	5	1929
1929	6	8	7	6	5	4	3	2	1	0	11	10	9	6	1928
1928	7	8	7	6	5	4	3	2	1	0	11	10	9	7	1927
1927	8	8	7	6	5	4	3	2	1	0	11	10	9	8	1926
1926	9	8	7	6	5	4	3	2	1	0	11	10	9	9	1925
1925	10	8	7	6	5	4	3	2	1	0	11	10	9		

date. Suppose a test were given between April 1 and 16, then April would correspond to September in Table I. March would then be the first month, February the second month, and January the third month. Furthermore, May would be the eleventh month, June the tenth month, and each succeeding month would decrease one in value until December, which would be the fourth month. The column showing the year of birth can be extended indefinitely, but, of course, no advantage is derived from extending this column beyond the birth year of the oldest pupil in the group considered.

Such a table is advantageous because it is extremely easy to construct and to read and because it gives accurately the chronological age of a pupil to the nearest half-month.

HEALTH SERVICES RENDERED BY SCHOOL PHYSICIANS AT THE UNIVERSITY OF CHICAGO LABORATORY SCHOOLS

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Adequate health supervision of the pupils enrolled in the Laboratory Schools of the University of Chicago is secured by the employment of two physicians on a full-time basis. In general, the woman physician has charge of the girls, and the man physician takes care of the boys. This sex division is adhered to strictly in the case of physical examinations. However, physical examinations comprise only one phase of the school health service, and there is of necessity some overlapping in the care of the pupils. The importance of considering other than the purely physical aspects in a medical appraisal of an individual is gaining increasing recognition by the medical profession and is particularly applicable to school health work.

MEDICAL HISTORY

From the educational and from the medical standpoint, a medical history is of great significance, particularly in the case of young pupils. Information elicited in the family, data concerning a child's birth and development, and health components of the medical history may be of decided import. A history of the child's eating, sleeping, and activity habits aids in evaluating daily routine. Social and emotional difficulties may be indicated by a history of habits like thumb-sucking, nail-biting, bed-wetting, etc. Upon a pupil's entrance into the school parents have been asked to fill in (1) a detailed medical-history form, (2) a form giving a record of diseases, and (3) a lengthy form entitled "Social and Educational Survey and Items of Family History." Antagonism (perhaps justified) on the part of parents toward a multiplicity of forms and duplication of data frequently resulted in failure to supply the desired information. At present attempts are being made to condense these three forms into a single form without sacrificing thoroughness.

The medical history obtained at the time of the pupil's entrance into the school is supplemented annually by an interim history, for which a special form is utilized. This form is mailed to parents before school opens in the autumn. The pupil brings the filled-in form when he appears for his preliminary examination in accordance with a time schedule printed on the blank.

PRELIMINARY EXAMINATION

Preliminary examinations are made on Thursday, Friday, and Saturday before the Monday on which school opens. Despite the fact that two physicians (a woman and a man) assist the regularly employed physicians, the time that can be given to these examinations is sharply limited. In order that the physicians' time may be conserved and the examination expedited, a definite routine (separate but similar for boys and girls) is followed. Before reaching the physician, a pupil passes through several stations manned by physical-education instructors. Additional personnel (high-school pupils) function between stations to assist pupils and to avoid confusion. At the first station the pupil is given a number (which determines his order of appearance at subsequent stations), and his "Entrance Inspection and Examination" form, which he then carries with him, is filled in with respect to his vaccination record. At subsequent stations the pupil's height and weight and certain facts with regard to the condition of his eyes are recorded. The examining physician enters his findings with respect to the pupil's nutrition and the condition of his heart, teeth, throat, spine, feet, and general health; makes recommendations with respect to physical activity or restrictions; indicates whether a re-examination is necessary and the date on which the re-examination should be held; and notes any other recommendations he may care to make. Finally, the forms are collected and checked for completeness by the secretary of the physicians' office.

The primary purpose of the preliminary examination is to determine, on the basis of the history and the physical findings, whether a pupil may enter school without detriment to his own health or to that of his fellow-pupils. While in most instances the annual-history form yields sufficient information, additional inquiry may be neces-

sary. If the pupil in question is a former pupil, his permanent records can be consulted readily. Although part-time school work is sometimes advisable, in practically no instance is the physical status so poor as to interdict school work entirely. Neither is it at all common to encounter a contagious disease of such a nature as to necessitate excluding the pupil from school.

Although conditions which interdict school attendance are only rarely observed, the doctors frequently find physical defects which may be of importance from the standpoint of education in general or which may require a restriction of the pupil's physical-education program. During the first week of school the records of the preliminary examinations are carefully checked for conditions of this kind. All physical defects are reported to the principals of the Elementary School and the High School, and conditions which necessitate restriction of physical activity are reported to the department of physical education.

ANNUAL, OR BIRTHDAY, EXAMINATION

Although the preliminary examination serves a useful purpose, lack of time makes it impossible to secure as detailed an examination as is desirable for a complete appraisal of a pupil's physical status. This appraisal is made by a thorough annual examination. Pupils are scheduled for examinations a week in advance, and copies of the schedules are supplied to teachers. Parents of young children are notified by letter of the date and the hour of the examination and are invited to be present. The presence of a parent or someone directly concerned with the care of the child is reassuring to the young pupil, and an opportunity is afforded for discussion of matters pertaining to the pupil's health. The hour allotted for the examination allows ample time, not only for a thorough physical examination, but also for questions on the part of parent, pupil, or examiner and for discussion of health matters. The pupil's complete medical record is at hand at the time of the examination.

The annual examination, also called the "birthday examination," is made on the pupil's birthday, as nearly as possible. Pupils whose birthdays fall during the summer months are examined at the half-year, during the winter months. Through the annual examinations

a systematic collection of data about individual pupils and groups of pupils is made. The desirability of such data for statistical and research purposes, particularly with respect to anthropometric or growth factors, is, of course, obvious.

Anthropometric measurements, which comprise the first part of the annual examination, are recorded on a separate sheet and are then transcribed to a master card, which contains a complete record of the pupil's yearly examinations. All measurements are made on the metric scale and are then translated to the English scale and so entered on the master card. The following exceptions may, however, be mentioned: weight is measured in pounds, height in inches, lung capacity in cubic inches, and hand squeeze in pounds.

While the measurements are listed on the form in a more or less anatomical sequence, the writer has found it expeditious to make at one time all measurements that are to be taken with one instrument. Thus, after weight, standing height, sitting height, and span of arms have been determined, the length of the forearms and of the lower legs, the iliac and the bitrochanteric widths, the chest width, and the shoulder width are determined with sliding calipers; the depth of the chest and the head width and length are determined by a compass (pelvimeter); and the various girths (head, neck, chest, abdominal, and hip) are measured with a steel tape. Separate instruments are used to determine head height, hand squeeze, and lung capacity.

The anthropometric portion of the annual examination serves chiefly for studies made by the Department of Child Development, but it may occasionally be of clinical significance. For instance, inequality in leg length may be responsible for scoliosis and for tilting of the pelvis. The purpose of the medical portion of the examination is to promote the physical well-being of the pupil and indirectly to promote his education. Despite the excellent medical supervision which most of the pupils enjoy outside the school, slight physical defects are discovered in about half the pupils. Such defects may constitute an actual or a potential threat to health and a definite educational handicap, for it is generally recognized that the maximum educational result is possible only when health is optimum.

To be of the greatest educational value, knowledge of a pupil's physical status should be in the possession of, or readily accessible

to, the persons concerned with his education. For this purpose the reports of the physical examination are made in triplicate, one copy for the principal's office, one for the physical-education instructor, and one for permanent filing with the pupil's record. Reports on the Elementary School pupils are made on a lengthy form containing practically all the items of the medical examination plus the medical-history items. For reports on High School pupils this form has been replaced, with the assent of the High School principal, by a much simpler form, on which are recorded positive findings, comments, and recommendations.

While the knowledge of physical defects is important, the correction of difficulties, if possible, is even more important. The responsibility for the correction of defects rests mainly with the parents. If a parent accompanies the pupil at the examination, the results of the examination are discussed, and, if indicated, recommendations are made. Occasionally recommendations are made to a high-school pupil. If recommendations are made to the parent or the pupil, the fact is noted in the report of the examination. If recommendations are indicated by the report but have not been made to parent or pupil, the principal sends a statement concerning findings and recommendations to the pupil's home.

SPECIAL EXAMINATIONS

Special examinations are made whenever a need for them is indicated. The entrance or the birthday examination may reveal conditions that call for follow-up examinations, single or repeated, over varying periods of time. A pupil may be referred for a special examination by the principal or by a teacher because of an apparently abnormal physical condition or because of a possible physical basis for an educational or a behavior problem. Occasionally a special examination is requested by a parent. The results of a special examination are recorded on a special blank, which is filed with the pupil's permanent record. If the nature of the examination requires it, a report may be made to the principal's office. Occasionally a pupil is referred to his physician for further examination or treatment.

A type of special examination which is almost a routine matter is the heart examination given Junior and Senior boys in the High

School who engage in strenuous competitive sports, such as swimming, basketball, and track. These examinations are considered desirable because of the vulnerability during puberty and adolescence. Other types of special examinations relate to first aid, restrictions in physical activity, restrictions in the use of the swimming pool and shower baths, and contagious-disease control.

FIRST AID

Although the school physicians may be called on to render first aid of any type, this service is limited almost entirely to the care of injuries. Numerous injuries, mostly of a minor character, are cared for daily. Supplies for the care of injuries, such as lacerations, sprains, strains, bruises, blisters, splinters, and ocular foreign bodies, are kept in the physicians' office. If an injury is at all serious, necessary first aid is given and the pupil's parents are advised to have a physician of their own choice render further care. Whenever warranted by the nature of an injury, antitetanus serum is recommended. A report of a severe injury is made to the principal on a special form. A severe injury may necessitate restriction of a pupil's physical activity.

RESTRICTIONS OF PHYSICAL ACTIVITY

There are various health conditions which may lead to restriction of physical activity. All restrictions of physical activity for reasons of health are decided on by the school physicians. Such a restriction may be complete or partial with regard to degree, and temporary, semi-permanent, or permanent with regard to time.

Many excuses from activity for a single day or for several days are granted daily. On readmission after an illness pupils, especially young pupils, are excused from physical activities for one day or for several days almost as a matter of routine.

If there is objective evidence of illness, decision on the advisability of restriction is usually not difficult. If, on the other hand, a pupil's complaint is subjective, it may be difficult of evaluation. Although some pupils are, no doubt, excused unnecessarily, malingering is discouraged in several ways. When the condition for which a pupil seeks an excuse is apparently of little or no significance, he is sent to physical-education class for full activity, modified activity, or to watch activity. If a pupil is sent home, his home is notified by tele-

In this way truancy is practically obviated. A pupil repeatedly may be advised to consult his physician for his complaints.

During an extended period of time are less likely to be absent than are those of short duration. Parents' records of pupils' activities are usually complied with and serve as a basis for a restriction requested by the parents. If necessary, they are asked to procure a physician's statement of a pupil's disability with a recommendation for restriction. In exceptional cases a physician may cater to the wishes of the parents, or the doctor's opinion may be at variance with that of school physicians. Nevertheless, his recommendation is usually honored. The opinion of an outside physician may be sought in reaching a decision on the necessity of restriction. His knowledge regarding illnesses, like nephritis, leukemia, blood dyscrasias, sinusitis, etc., or regarding surgical operations is usually more complete than that of the school medical-history blank. Susceptibilities to upper respiratory infections, asthma, and hay fever also may be best determined by the school physician.

Under normal conditions revealed by a pupil's history, a physical examination may constitute the basis for restriction of physical activity. If the disability is orthopedic in nature, in co-operation with the pupil's physician or orthopedist, arrange a special program involving individual attention to physical conditions, such as heart disease, hernia, and scoliosis, to state restriction in varying degrees.

As a physical defect which cannot be regarded as a disability, which does not ordinarily interfere with physical activity, nevertheless, make complete or partial restriction desirable. The young hyperkinetic child must be given the expenditure of physical and nervous energy. During the rapid-growth period which begins shortly before puberty, give rise to a rather marked degree of undernutrition of activity imperative. Because of reluctance of many boys to give up gymnastic activity, a restriction of activity is often necessary to avoid an

unfavorable emotional reaction which might in turn influence nutrition unfavorably and thus defeat the purpose of the restriction.

RESTRICTIONS IN THE USE OF THE SWIMMING POOL AND SHOWER BATHS

While swimming may be contra-indicated as a physical activity, restrictions in the use of the swimming pool and shower baths may also serve for the protection of pupils other than those restricted. Restrictions relating to the use of shower baths are almost exclusively of the latter type. All pupils with conditions which might lead to pollution of the water are excluded from the swimming pool. Such conditions may be disorders like otitis media and conjunctivitis, or they may be skin disorders like furuncles, impetigo, and other forms of pyoderma.

All contagious skin disorders also preclude admission to the swimming pool and shower baths. Ringworm (or suspicion of ringworm) is perhaps the most common reason for exclusion. Though only mildly contagious, plantar and palmar warts are also causes of exclusion from the swimming pool and the shower baths. Weekly inspections for skin disorders are made by physical-education instructors, and suspicious cases are referred to the school physicians. A record is kept in the physicians' office of pupils who are excluded, and the pupils are not permitted to resume use of the swimming pool and showers until they receive permission from the school physician.

CONTROL OF COMMUNICABLE DISEASES

Inasmuch as immunity to communicable diseases is of prime importance in their control, furtherance of artificial immunity (resulting from vaccination or inoculation) is desirable. Immunity to smallpox is required of all pupils, who must present certificates of vaccination from their own physicians. In case certification by a pupil's physician is very inconvenient or impossible and the pupil possesses a satisfactory vaccination scar, the certificate may be filled in by the school physician. Although smallpox is the only disease for which immunity is mandatory, immunization to other diseases is encouraged and is common practice, especially among the Elementary School pupils. Practically all young children in the school have been immunized against diphtheria or have been found to be immune by

means of the Schick test. Immunization to scarlet fever and whooping cough is probably commensurate with the patronage which these immunizations can command at the present time.

Notwithstanding the favorable status of artificial immunization among the Laboratory School children, much remains to be desired, and measures for the control of communicable diseases are absolutely essential. Of particular importance in the control of communicable diseases is the common cold, not only because of its prevalence and communicability per se, but also because of the fact that symptoms characteristic of a cold may be precursory to specific communicable diseases. Successful control of cold symptoms should, to a large extent, solve the problem of communicable-disease control.

Effective control of communicable diseases implies early knowledge of their existence or of a child's exposure to them. For this purpose various procedures are employed. In view of the greater susceptibility to communicable disease among children of preschool age and because of the children's lack of knowledge regarding the importance of personal conduct in the prevention of the spread of communicable diseases, the kindergarten children are inspected every morning. Although this inspection assumes the formal aspect of a throat examination, each child is given a rapid survey for any signs of illness. Since symptoms like coughing, sneezing, nasal discharge, and lassitude may escape detection on momentary inspection, the teachers are relied on to refer for further examination pupils showing any abnormal signs or symptoms.

Although daily inspection of all pupils would consume too much of the time of pupils, teachers, and physicians, teachers are expected to be on the alert for signs or symptoms of illness and to refer all suspicious cases to the physicians.

The school telephones the home to ascertain the reason for every absence, and this procedure frequently yields information regarding communicable diseases. Telephone calls concerning pupils absent from the Elementary School are made from the school physicians' office; those concerning pupils from the High School are made from the principal's office. If a pupil is absent over an extended period of time, subsequent calls are made.

All Elementary School pupils and those High School pupils who

have been absent for reasons pertaining to health are readmitted to classes only after having procured from the school physician a readmittance slip. This procedure enables the physicians to exclude pupils who might otherwise return to school too soon after an illness and become the source of infection for others or, incidentally, pupils who might return too soon for their own welfare. Occasionally an undiagnosed case of communicable disease is discovered.

Duplicate monthly records of absences and readmissions involving the health of pupils are kept in the school physicians' office throughout the school year. One copy is supplied to the principal's office and another to the central records office.

Emphasis should be placed on the information which the parents can give to assist in early detection of communicable diseases. Most parents co-operate commendably in reporting cases of communicable disease in their children or their exposure to such diseases. Frequently parents report knowledge or suspicion of illness or exposure in other families. Such reports, as well as rumors from any other source, are always carefully investigated. Parents' questions are answered frankly, but gossip is discouraged.

If a room of pupils is exposed to a communicable disease, the group is not permitted to mix with other groups. Exposure is regarded as having taken place when one of the pupils develops signs or symptoms of a communicable disease within twenty-four hours after having been with other members of the group. All non-immune exposed pupils are inspected daily during the incubation period of the disease. Inspection lists are compiled readily from "Disease and Immunization Record" cards which are kept for all pupils. Parents of a group of pupils who have been exposed to a specific communicable disease at school are advised accordingly. At times the brevity of the incubation period of a communicable disease, such as scarlet fever, or late knowledge of exposure necessitates notification by telephone. Ordinarily, however, letters are sent to the parents.

ADVISORY SERVICE

Although the school physician has no direct jurisdiction over many aspects of school life that definitely concern the health of pupils, he must, nevertheless, act in the capacity of consultant and ad-

viser. Close co-operation between the school physician and persons directly concerned with the various phases of the pupils' school life is highly desirable. At times co-operation with the several departments of the school is essential. The school physician, for example, may be in a position to give advice on such matters as classroom seating and illumination, ventilation and heating, janitor service, toilet and washroom facilities, care of the swimming pool, and management and supervision of the lunchroom.

A further matter which may properly be considered an aspect of sanitation concerns the health of the school personnel, particularly of teachers, with whom pupils come into intimate contact. In view of the vulnerability of young children to tuberculosis, an annual health certification of the teachers, especially a careful chest examination of all Elementary School teachers, has been advocated by the school physicians.

EVALUATION OF TEXTBOOK MATERIALS IN HANDWRITING

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The selection of a basic textbook for state adoption is of such tremendous significance that a careful professional evaluation of all available textbook materials must be made prior to the adoption. Over a period of several years the California State Curriculum Commission has developed a procedure of textbook evaluation involving the following four major steps: (1) the development of a set of criteria by which the books may be judged; (2) the formulation of a score card based on the assignment of numerical values to the items of the criteria; (3) the completion of a series of studies, primarily objective in character, designed to secure data with respect to the relative merits of the books on all items of the criteria; and (4) the interpretation and utilization of these data in rating the books on the score card.¹

The purpose of this article is to present a brief summary of the recent evaluation of textbook materials in handwriting for the elementary grades.

THE CRITERIA

The following criteria were formulated and used by the State Curriculum Commission in the evaluation of textbook materials in handwriting.

1. The books should include adequate illustrations showing correct positions for handwriting at blackboard and seat.

¹ A somewhat detailed report of the procedure as applied to arithmetic textbooks is contained in *Evaluation of Arithmetic Textbooks*. Department of Education Bulletin No. 19. Sacramento, California: State Department of Education, 1932. See also Ivan R. Waterman and Irving R. Melbo, "A Plan of Procedure for the Evaluation of Textbooks in Reading," *Elementary School Journal*, XXXV (May, 1935), 662-74; and "Evaluation of Spelling Textbooks," *Elementary School Journal*, XXXVI (September, 1935), 44-52.

2. Letter and numeral forms of sizes appropriate for use in primary and upper grades, showing in detail the method of making each character, should be included.
3. The book should include samples of the common joinings of letters.
4. There should be included samples of pleasing and correct arrangements of a composition, a letter, address on envelope, bill, check, and other commonly used forms.
5. There should be included samples of exercises designed to improve writing ability but no sentences and paragraphs to be copied by the pupils.
6. The book should include appropriate directions for the guidance of pupils with respect to such items as correct writing position; the rôle of the arm, wrist, and fingers in writing; proper method of holding pencil, pen, or chalk; rhythm in writing; importance of maintaining good quality in all writing; standards of form and speed; effective practice procedures.
7. The total volume of material for pupils should be brief, probably not exceeding thirty-two pages of ordinary textbook size.
8. Suggestions to teachers should be provided, including (a) statement on the place of handwriting in the school curriculum, (b) comprehensive directions related to teaching procedures.
9. The format of the book should conform to a high standard.

These criteria are somewhat of a departure from the standards to which books in handwriting or penmanship traditionally conform. Consequently, a series of handwriting books satisfying these criteria will be fundamentally different from the usual penmanship book. Underlying the criteria is the point of view that instruction in handwriting, though requiring skill, should not be highly formalized; that handwriting is merely a tool of expression and should be taught as such; that in handwriting instruction the teacher is more important than the textbook; and that the instructional material should be in the nature of a guide or pupil help rather than a system of drill to be rigidly followed.

COMPARATIVE STUDIES

Comparative studies were made to determine the differences on each of the criteria among nine series of handwriting textbooks submitted for state adoption. These studies were made by the Division of Textbooks and Publications of the State Department of Education to serve as a basis for the subsequent evaluation of the books by the State Curriculum Commission. While it is obviously impossible to present a complete report of these studies in a single article, a

brief general discussion of the procedure followed and of the studies that were made may be of some value to others responsible for the selection of textbook materials in handwriting.

Illustrations.—Proper habits with respect to the correct positions for handwriting materials and the correct positions for writing comfort and efficiency can probably be developed better through the use of illustrative materials than by a set of printed directions. The

TABLE I
NUMBER AND KINDS OF ILLUSTRATIONS INCLUDED IN NINE
ELEMENTARY-SCHOOL TEXTBOOKS IN HANDWRITING

ILLUSTRATIONS INCLUDED	TEXTBOOK*								
	A	B	C	D	E	F	G	H	I
Correct position for writing at seat (desk)	....	×	....	×	×	×	×	×	×
Correct position for writing at black-board	×	×	....	×	×	....	×	....	×
Correct position for holding pen or pencil	×	×	....	×	×	×	×	×	×
Correct position for holding chalk	×	×	....	....	....	....	×	....	....
Correct position for holding paper:									
a) Right-handed persons	×	×	....	×	....	×	×	....	×
b) Left-handed persons	×	×	....	....	....	....	....	....	....
How hand moves in writing	....	×	....	....	....	....	....	....	....
A class in handwriting	....	....	....	×	....	....	....	....	×
Total number of illustrations	5	7	0	5	3	3	5	2	5

* Each letter in Table I and all tables to follow is used to identify one complete series of handwriting textbooks.

number and the kinds of illustrations included in each of the nine handwriting series submitted are shown in Table I. The table offers no estimate of the quality or the adequacy of the illustrations included. Only two books contain illustrations which are up to date, which are of good photographic quality, and which depict children of ages reasonably appropriate for the grade level for which the materials are intended. All the other books contain pictures which are either definitely out of date or use adults as the subjects.

Letter and numeral forms.—All books submitted appear to contain satisfactory amounts of material showing in detail the method of making each letter and numeral. Two of the books, however, fail to recognize adequately the commonly accepted educational prac-

tice of differentiating the size of letter and numeral forms in accordance with the writing abilities of children at the various grade levels.

Samples of common joinings.—Each of the nine handwriting series contains some illustrations showing how certain commonly used letters should be joined. In no book is there a flagrant omission of such samples, but four books appear to make rather inadequate provisions for samples of common joinings.

TABLE II.

SAMPLES OF COMMON FORMS INCLUDED IN NINE ELEMENTARY-SCHOOL TEXTBOOKS IN HANDWRITING

INCLUDES SAMPLES OF CORRECT FORMS FOR—	TEXTBOOK								
	A	B	C	D	E	F	G	H	I
Composition.....	X	X					X		
Letter.....	X	X	X		X	X	X	X	X
Address on envelopes.....	X	X	X						X
Bill.....	X	X					X		
Check.....	X	X			X	X	X		
Receipt.....	X				X	X			
Telegram.....	X	X	X						
Classified advertisement.....	X								
Post-office order to change address.....		X							
Addresses and memoranda.....		X							
Application for post-office money order.....		X							
Simple cash account.....		X					X		
Promissory note.....					X	X			
Total number of samples.....	8	10	3	0	4	4	5	1	2

Samples of common forms.—Instruction in handwriting usually includes some practice in the writing of a letter, composition, check, and other similar forms commonly used in personal or business activities. Table II shows the number and the kinds of sample forms included in the textbook series submitted. Only two books make fairly complete provisions for samples of common forms. In all cases the samples provided for the forms illustrated appear to be satisfactory. However, the utility of some of the forms included may be questioned. For example, the forms for a promissory note and a simple cash account probably have little applicability to the needs of elementary-school children.

Practice exercises.—Handwriting is essentially a tool rather than

an end in itself, and a good instructional program can undoubtedly be aided by textbook materials concerned with both the meaning and the skill elements in writing. Relatively little use should be made of formal "nonsense exercises," usually given in the form of "oval" and "push-pull" exercises. These appear to serve no valid educational purpose except a rather limited use as "warm-up" exercises. On the other hand, legibility in writing cannot be attained by the writing of meaningful words and sentences alone without regard to the specific skills and abilities involved. Six of the books submitted include a number of rather meaningless "oval" and "push-pull" exercises, and all books except one contain a fairly large number of sentences and paragraphs to be copied by the pupils.

Directions for pupils.—Directions designed to guide pupils in correct handwriting procedure are an essential part of handwriting textbooks. Directions for pupil guidance on the following points are included in each of the textbook series submitted except one: (1) correct writing position; (2) rôle of the arm, wrist, and fingers in writing; (3) proper method of holding pencil, pen, or chalk; (4) rhythm in writing; (5) importance of maintaining good quality in all writing; (6) standards of form and speed; and (7) effective practice procedure. When the adequacy or the suitability of such directions is considered, some attention must be given to the factor of vocabulary difficulty and the form in which the directions are presented. Specific directions for pupils should be written in a readily understandable style and probably should be directed to the pupil rather than to the teacher, except possibly in the primary grades. Of course, the teacher will be an influencing factor in any grade. Only two of the books submitted contain directions which appear to be definitely suitable for pupil use, whereas seven books contain directions primarily intended for the teacher.

Quantity of material.—While no one knows what is the optimum amount of material to be included in a handwriting textbook for each of the elementary grades, the total amount of such material should probably not be large. Table III shows the quantity of materials in each handwriting series submitted. In an analysis of the materials included in a textbook, the factor of overlapping should be considered. In textbooks in handwriting a certain amount of overlapping

between grades may be considered useful, but, in view of the wealth of available materials, a large degree of duplication appears to be undesirable. Most of the books contain some overlapping materials, and one textbook series contains a total of only six pages of different material in the books for Grades IV, V, VI, VII, and VIII. It would appear to be a better educational practice and more economical to present such material in a single book for all the grades concerned rather than to duplicate exactly the same material in a book for each of the grades.

TABLE III

NUMBER OF PAGES OF MATERIALS INCLUDED IN NINE ELEMENTARY-SCHOOL TEXTBOOKS IN HANDWRITING

GRADE	TEXTBOOK								
	A	B	C	D	E	F	G	H	I
I.....	50	32	33	40	32	32	36	52	0
II.....		32	58	32	32	32	36		40
III.....		32	39	32	32	32	32		48
IV.....		32	49	32	32	32	32		56
V.....		32	28	32	32	32	32	56	0
VI.....				32	32	32	32		72
VII.....				32	32	32	32		0
VIII.....				32	32	32	32		0
All grades.....	50	192	240	264	256	256	264	108	216
Size of page (in inches)	8½×6	8×6½	11×8½	8×7	8×4	8×4	7½×4	8×4	8½×6

Suggestions to teachers.—To some extent information concerning the place of any given subject in the total elementary-school program and suggestions related to teaching procedures should be provided by the basic textbook materials which are used in the teaching of the subject. In seven of the handwriting series examined suggestions to teachers are presented in separate manuals for the teachers. Each of the other two books presents a small amount of material directed to teachers as a part of the foreword or preface. Since there is a lack of objective evidence on teaching procedures in handwriting, the suggestions to teachers in the several books differ widely and frequently are mere expositions of the alleged superiority of certain systems of handwriting.

Format.—Since format is a factor which can be corrected with more or less ease, it probably is less important as a criterion in the evaluation of handwriting materials than any of the other criteria. Analysis of the size of type, size of page, binding, and the general arrangement and makeup disclosed a high degree of uniformity in the books submitted. Except in the case of mimeographed and photostatic materials, no significant differences were noted.

CONCLUSION

In the comparative studies which have been briefly described, no attempt has been made to present data with respect to the relative merits of textbooks in handwriting. The purpose of this article is primarily to describe a plan of procedure which takes a step in the direction of a scientific selection of textbooks and to suggest certain specific studies which can be readily made in the process of selecting textbooks in handwriting. In no way is this list of studies complete. The study on each of the criteria outlined can easily be expanded and data secured on other points. The report serves, however, to indicate the analytical approach which can be made to the problem of textbook evaluation. It also indicates something of the extent to which objective data rather than mere opinion may be utilized in comparing textbooks. Using this procedure, the evaluating body can confidently select the book or the series which is best in terms of the criteria or standards previously formulated.

SELECTED REFERENCES ON ELEMENTARY- SCHOOL INSTRUCTION

III. THE SUBJECT FIELDS—CONTINUED

This list of references is the third of a series relating to instruction at the elementary-school level. The first list contains items on the curriculum, methods of teaching and study, and supervision. The second list contains items grouped under the following subject fields: reading, English, spelling, handwriting, the social sciences, and geography. The present list covers the remaining subject fields at the elementary-school level and is the last of the series of three dealing with elementary-school instruction.

ARITHMETIC

G. T. BUSWELL

The following bibliography has been selected from the references on arithmetic published during the period from June, 1934, to June, 1935. It includes both reports of research and discussions. The eleven references included were selected from a list of sixty-one titles examined by the compiler.

512. BOND, ELIAS A. *The Professional Treatment of the Subject Matter of Arithmetic—For Teacher-training Institutions, Grades I to VI*. Teachers College Contributions to Education, No. 525. New York: Teachers College, Columbia University, 1934. Pp. 316.

A comprehensive treatment of the problem of training teachers of arithmetic and of the content of a desirable course for such teachers.

513. DICKEY, JOHN W. "The Value of Estimating Answers to Arithmetic Problems and Examples," *Elementary School Journal*, XXXV (September, 1934), 24-31.

Reports a limited control experiment the results of which seem "to indicate that practice in estimating answers to arithmetic problems is of no more value to sixth-grade pupils than is the traditional practice in the solution of such problems."

514. GOOD, H. G. "Invention and School Arithmetic," *School and Society*, XXXIX (June 23, 1934), 796-802.

An interesting historical account of significant contributions to the content of arithmetic.

515. GROSSNICKLE, FOSTER E. "Methods of Estimating the Quotient in Long Division Used by Teacher-training Students," *Elementary School Journal*, XXXV (February, 1935), 448-53.

An analysis of the returns from sixty-six questionnaires received from teacher-training institutions, showing which of eleven possible methods of estimating the quotient were used by students.

516. MACLATCHY, JOSEPHINE. "Number Abilities of First-Grade Children," *Childhood Education*, XI (May, 1935), 344-47.

A brief summary of present knowledge on the topic as contributed by the author and others.

517. McLAUGHLIN, KATHERINE. "Number Ability of Preschool Children," *Childhood Education*, XI (May, 1935), 348-53.

A brief summary of a study of the development of counting, recognition of number aggregates, and combinations of aggregates. Shows relation of these abilities to general intelligence.

518. MORTON, R. L. "Sales of Books on the Teaching of Arithmetic," *Mathematics Teacher*, XXVIII (March, 1935), 138-44.

Shows the number of books on the teaching of arithmetic sold during the first ten years after publication. Data on sales during 1923-32 are also given, showing effects of the depression.

519. POLKINGHORNE, ADA R. "Young Children and Fractions," *Childhood Education*, XI (May, 1935), 354-58.

Summarizes the results of a survey of the knowledge of fractions in a group of 266 children below Grade IV.

520. *The Teaching of Arithmetic*. Tenth Yearbook of the National Council of Teachers of Mathematics. New York: Teachers College, Columbia University, 1935. Pp. vi+290.

William A. Brownell's contribution to the yearbook, a chapter entitled "Psychological Considerations in the Learning and the Teaching of Arithmetic," presents arguments for a "meaning" theory for teaching arithmetic as contrasted with the "drill" theory and the "incidental" theory. This article is worth careful study. Leo J. Brueckner, in a chapter entitled "An Analysis of Instructional Practices in Typical Classes in Schools of the United States," reports the results of a survey of teaching in 505 classes, which revealed that the major objective of the teachers was the development of skill in computation. A chapter on "Informational Arithmetic," by B. R. Buckingham, is a fertile discussion, giving many concrete proposals for adding informational material to the course in arithmetic. Course-of-study or textbook committees will find this article significant. The chapter on "The Relation of Social Arithmetic to Computational Arithmetic," by G. T. Buswell, is a criticism of the application of a narrow interpretation of the "social-utility" theory, chiefly

as it is applied to computation. A study by Paul R. Hanna and others, "Opportunities for the Use of Arithmetic in an Activity Program," reports a detailed survey, in Grades III-VI only, of the computational and non-computational arithmetical situations encountered during four months in teaching arithmetic through activities. The authors emphasize the need for something more than the activity method in teaching arithmetic. An important chapter by J. T. Johnson, "Economy in Teaching Arithmetic," reports an experiment in teaching addition and subtraction of fractions by means of decimal equivalents. Romie Dustin Judd and Robert L. Morton, in a chapter entitled "Current Practices in Teacher-training Courses in Arithmetic," report an analysis of the replies to a questionnaire received from 129 teacher-training institutions. "The Problem of Transfer in Arithmetic," by James R. Overman, is a summary of the present status of transfer of training in arithmetic as revealed by several significant investigations. The study by Austin C. Repp, "Types of Drill in Arithmetic," is an attempt to secure a better understanding of the function of drill in arithmetic. The author gives illustrations of various types of drill and argues for their proper use in a "teaching, fixation, and maintenance" program. The discussion by C. L. Thiele, "The Mathematical Viewpoint Applied to the Teaching of Elementary School Arithmetic," is of particular value to students whose specialization has been limited chiefly to courses in education. Clifford B. Upton, in "Making Long Division Automatic," gives an analysis of methods of teaching long division.

521. WILSON, GUY M. "Research: Suggested Standards for Summarizing and Reporting Applied to Two Recent Summaries of Studies in Arithmetic," *Journal of Educational Research*, XXVIII (November, 1934), 187-94.

A critical analysis of two bibliographies on arithmetic for the year 1930: one prepared by the United States Office of Education, the other by the author of the present bibliography.

522. WOODY, CLIFFORD. "Arithmetic," *Special Methods and Psychology of the Elementary-School Subjects*, pp. 14-30, 93-97. Review of Educational Research, Vol. V, No. 1. Washington: American Educational Research Association of the National Education Association, 1935.

A summary of ninety-six studies in arithmetic. A valuable reference for students wishing an overview of recent research.

SCIENCE

SAMUEL RALPH POWERS¹

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This bibliography on instruction in science in the elementary school is believed to be fairly complete for the interval of June, 1934,

¹ Miss Agnes W. Nemir, supervisor of elementary science in the public schools, Glens Falls, New York, assisted in selecting the articles and in preparing the annotations.

to June, 1935. The articles have come from different centers in which constructive work is in progress.

523. AVERY, LEWIS B. "Science in the Program of the Elementary School," *Science Education*, XVIII (October, 1934), 152-57.

A description of the elementary-school program of Oakland, California, in which science and social studies are used as the core of the curriculum.

524. BLOUGH, GLENN O. "Let's Do an Experiment," *School Science and Mathematics*, XXXV (June, 1935), 603-5.

A discussion of experimentation as a teaching tool in elementary-school science, with emphasis on the importance of definitely organized presentation.

525. BRUCE, G. V. "Elementary School Science Reference and Instructional Materials," *Science Education*, XIX (February and April, 1935), 25-29, 76-78.

A brief discussion of the need for reading and instructional materials in elementary-school science. A partial annotated bibliography of suitable materials is included.

526. BURGESS, ANNA E. "The Curriculum School as a Method of Building a Course of Study in Elementary Science," *Science Education*, XVIII (December, 1934), 216-21.

A discussion of various methods of building curriculums; the technical tasks in curriculum-making; and the system used by the Cleveland schools, namely, observing results in a curriculum-center school from which the city curriculum is evolved.

527. CURTIS, FRANCIS D. "Curriculum Investigations at the Elementary- and Secondary-School Levels: I. Science," *The Curriculum*, pp. 165-68, 228-29. Review of Educational Research, Vol. IV, No. 2. Washington: American Educational Research Association of the National Education Association, 1934.

A review of curriculum investigations with reference to trends toward establishment of sequence in science courses, studies on overlapping of subject matter and of subject-matter contents, and studies of scientific attitudes and scientific methods.

528. DMOCHOWSKI, A. "Science Teaching in Polish Primary Schools," *School Science Review* (London), XVI (December, 1934), 145-52.

A description of the teaching of science in the first seven grades of Polish public schools, an outline of the course of studies for these grades, and a description of the cities' central laboratories from which equipment is distributed and to which teachers may take classes for instruction in science.

529. DOLMAN, HELEN. "Limestone: A Sixth Grade Unit," *School Science and Mathematics*, XXXV (March, 1935), 245-51.

Description of a unit on limestone and of the desirable outcomes of such a unit.

530. HALL, JENNIE. "Teaching Scientific Method: V. Why Science in the Elementary School," *School Science and Mathematics*, XXXIV (October, 1934), 693-99.
A discussion of the contribution of elementary-school science to the development of scientific attitudes.
531. HAUPT, GEORGE W. *An Experimental Application of a Philosophy of Science Teaching in an Elementary School*. Teachers College Contributions to Education, No. 633. New York: Teachers College, Columbia University, 1935. Pp. vi+110. (See also *Science Education*, XVIII [December, 1934], 234-38.)
This study was undertaken to test, throughout the elementary school, the recommendations for science-teaching presented in *A Program for Teaching Science* (Part I of the Thirty-first Yearbook of the National Society for the Study of Education). There is included an exposition of instructional method which is directly applicable to the classroom.
532. HULTZ, HELEN L. "Science for Children," *Science Education*, XIX (April, 1935), 56-60.
The author indicates the close connection between science and the child's experience, emphasizes the values of guided observation and experimentation, and enumerates many children's interests involving scientific meaning.
533. MELROSE, MARY. "Radio Lessons in Elementary Science," *Science Education*, XVIII (October, 1934), 167-68.
Describes radio programs in elementary science used with the sixth-grade pupils of seventy-two schools in Cleveland.
534. NICHOLS, HELENE. "Teaching Science in an Elementary School That Uses the Unit Method of Instruction," *School Science and Mathematics*, XXXV (January, 1935), 63-68.
A description of the rôle of elementary science in unit teaching in Manhasset, New York.
535. PALMER, E. LAURENCE. *Through the Years in School Science*. Cornell Rural School Leaflet (Teachers' Number), Vol. XXVIII, No. 1. Ithaca, New York: New York State College of Agriculture at Cornell University, 1934.
This number contains a synopsis of two-year sequences in elementary-school science and specific suggestions for lessons, seasonally arranged and graded to the needs of rural schools. The outline is closely integrated with the New York State syllabus in elementary science and with the *Handbook for Rural Elementary Schools: The Social Studies Group*.
536. PARKER, BERTHA M. "Air Pressure: An Intermediate-Grade Unit in Science," *Science Education*, XVIII (December, 1934), 207-11.
Discusses criteria of content and organization and explains technique in the development of units in science, using "Air Pressure" as an exemplary unit.

537. PARKER, BERTHA M. "A Science Exercise," *School Science and Mathematics*, XXXV (May, 1935), 457-59.

Discusses the learning value of a summary program of pupil demonstrations for a visiting class.

538. PARKER, BERTHA M. "Suggestions for a Unit on Thermometers," *School Science and Mathematics*, XXXV (June, 1935), 578-83.

Describes a challenging development of a fourth-grade unit on thermometers.

539. POWERS, SAMUEL RALPH. "Science," *Special Methods and Psychology of the Elementary-School Subjects*, pp. 70-74, 114-15. Review of Educational Research, Vol. V, No. 1. Washington: American Educational Research Association of the National Education Association, 1935.

A review of recent investigations in elementary-school science discussing modern trends in the United States and other countries, curriculum studies, studies of procedures in learning, and the effects of instruction in elementary science on attitudes of the children.

540. ROBERTSON, MARTIN L. "The Selection of Science Principles Suitable as Goals of Instruction in the Elementary School," *Science Education*, XIX (February and April, 1935), 1-4, 65-70.

A concise statement of the method of investigation followed in determining principles of science suitable as goals of instruction in elementary schools. Includes a list of the goals selected.

541. SHONTZ, GERALDINE. "Factors Conditioning the Development of Understandings in Beginning Science," *School Science and Mathematics*, XXXV (April, 1935), 411-15.

Discusses the problems of grade placement, teacher background, superstitions and unscientific beliefs, animistic treatment of science materials, and lack of sufficient suitable references for elementary-school science.

542. VINAL, WILLIAM GOULD. "The Value of Nature Leadership in Camp as Training for the Teaching of Elementary Science," *Science Education*, XIX (February, 1935), 16-19.

Discusses the differences in the teaching of science in the schoolroom and in the camp and stresses advantages to the elementary-school science teacher of experience as student teacher in camp.

543. WILSON, MERLE. "Fourth-Grade Unit on Study of Animals of the Environment," *Science Education*, XIX (February, 1935), 24.

A brief outline of methods used by the author in teaching a study of animals of the environment.

MUSIC*

ANNE E. PIERCE

University of Iowa

544. BORLAND, JOHN E. "Rhythmic Training in Boys' Schools," *Musical Times* (London), No. 1106 (April, 1935), pp. 334-36; No. 1107 (May, 1935), pp. 428-29; No. 1108 (June, 1935), pp. 523-24.
A series of articles describing a course in fundamental rhythmic training for children of elementary-school age.
545. BOWEN, CATHERINE DRINKER. *Friends and Fiddlers*. Boston: Little, Brown & Co., 1935. Pp. 262.
A book telling of pleasurable experiences in musical participation and suggesting ways to interest children in music. The chapter dealing with family music is particularly significant for teachers.
546. EARHART, WILL. *The Meaning and Teaching of Music*. New York: M. Witmark & Sons, 1935. Pp. xii+250.
A philosophical, aesthetical, and psychological discussion of different phases of musical education by a well-qualified musician and educator. The Appendix includes an account of an experimental study in creative music.
547. EARHART, WILL. "Music in the Schools of England," *Music Educators Journal*, XXI (March-April, 1935), 14-15.
An American's impressions of music instruction in the schools of England gained from brief observation.
548. ELLIS, G. C. "A School Wood-Wind Orchestra," *Musical Times* (London), No. 1103 (January, 1935), pp. 42-43.
A report of an experiment in a Sheffield (England) elementary school in making pipes from bamboo and cork to form the basis of a wood-wind ensemble.
549. HUBBARD, GEORGE E. *Music Teaching in the Elementary Grades*. Chicago: American Book Co., 1934. Pp. x+228.
A plan of work for the first six grades, with specific instructional helps for teachers.
550. IRWIN, JOHN STAMM. "Piano Classes That Make Success," *Etude*, LIII (January, 1935), 15.
Gives devices for interesting children in class lessons in piano. A suggested list of teaching materials is appended.
551. JACQUES, REGINALD. *Voice-training in Schools*. New York: Oxford University Press, 1934. Pp. 118.

* See also Item 97 in the list of selected references appearing in the March, 1935, number of the *Elementary School Journal*.

Deals with vocal problems of pupils ranging from ten to eighteen years in age. Includes suggestive lists of songs for each period of instruction, methods of teaching them, and directions for conducting.

552. KWALWASSER, JACOB. "What Can Children Teach Us about Teaching Children?" *Music Educators Journal*, XXI (October, 1934), 21, 24.

A brief review of experiments in music education. Among the subjects investigated are the effect on children's reactions to music of range and keys of songs; their likes and dislikes of certain interpretations of songs and tonal quality used; the relation of dancing to rhythmic understanding; and the influence of singing on non-music learning, as, for example, arithmetic.

553. PORTER, E. G. "Children's Concerts," *Musical Times* (London), No. 1107 (May, 1935), pp. 430-31.

Presents results of a questionnaire given to discover children's reactions to compositions heard in a concert.

ART AND ART EDUCATION

W. G. WHITFORD

554. *Art Education Today*. Edited by members of the Fine Arts Staff, Teachers College, Columbia University. New York: Teachers College, Columbia University, 1935. Pp. 78.

An annual publication devoted to problems of art education. Contains discussions of the following topics: "Art," "Art and the Future," "A Point of View in Art Education," "The Intuitive Method," "Art Appreciation," "Give Us Art in Our Time," and special problems pertaining to the teaching of various art projects.

555. BERRY, ANA M. *Art for Children*. New York: Studio Publications, 1934. Pp. 152.

A new and more attractive edition of a book previously issued in 1929. Profusely illustrated with famous pictures for children grouped under the following headings: "Animals," "Games and Amusements," "Ships," "Legends and Adventure," "Angels and Fairies," "Portraits of Children." Excellent interpretations accompany the pictures.

556. BRYANT, LORINDA MUNSON. *The Children's Book of Recent Pictures*. New York: D. Appleton-Century Co., Inc., 1934. Pp. x+106.

A compilation of fifty pictures for children. Each picture is reproduced in halftone and is accompanied by a page of explanatory text. The text describes the picture, first, from the standpoint of art in general and, then, from the standpoint of its history and its artist. Only pictures produced within the last hundred years are included.

557. GLACE, MARGARET F. S. *Art in the Integrated Program*. Shippensburg, Pennsylvania: Margaret F. S. Glace (State Teachers College), 1934. Pp. viii+94.

- An analysis of the art content in sixty-four units of activities in Grades IV, V, and VI. Presents a composite list of problems and materials used in the various activities and a good bibliography of 186 records of units of work.
558. KALTENBACH, G. E. *Dictionary of Pronunciation of Artists' Names*. Chicago: Art Institute of Chicago, 1934. Pp. vi+74.
- A simple and practical guide for the pronunciation of artists' names. Will be of especial value to teachers of art in acquiring the correct pronunciation of the names of foreign artists. Should be on every art teacher's desk.
559. MEIER, NORMAN C. "What We Now Know about Talent in Children," *Western Arts Association Bulletin*, Vol. XVIII, No. 4, pp. 143-63. Indianapolis, Indiana: Western Arts Association, 1934.
- A general discussion of the aesthetic intelligence of children and an explanation of experiments which have been conducted under the general direction of the author.
560. MORRISON, JEANETTE GERTRUDE. *Children's Preferences for Pictures Commonly Used in Art Appreciation Courses*. Chicago: University of Chicago Press, 1935. Pp. xii+56.
- An investigation to determine children's preferences for pictures commonly listed in public-school courses of study. The study shows that children's preferences do not coincide with the classification of pictures ordinarily used in school work. It further indicates that the children's interests in picture types are not entirely in accord with traditional adult opinion in this respect.
561. PAYANT, FELIX. *Our Changing Art Education*. Columbus, Ohio: Ceramic Studio Publishing Co. Pp. 94.
- A profusely illustrated book presenting a progressive and educational approach to the teaching of art. Discusses individual and social needs for art, changing objectives, the art curriculum, the new teacher of art, and the appreciation-creative cycle, and gives special methods for the teaching of a variety of art and craft projects.
562. PENNSYLVANIA STATE DEPARTMENT OF PUBLIC INSTRUCTION. *Course of Study in Art Education for Elementary and Secondary Schools*. Bulletin 41. Harrisburg, Pennsylvania: State Department of Public Instruction, 1933. Pp. 110.
- A carefully prepared syllabus in art for elementary and secondary schools. It is unusually complete and contains detailed outlines of objectives, subject-matter content, methods, measurement of progress, and full bibliographies for each division of the school.
563. RUSK, WILLIAM S. (Editor). *Methods of Teaching the Fine Arts*. Chapel Hill, North Carolina: University of North Carolina Press, 1935. Pp. x+220.
- A symposium of opinions pertaining to art education. Includes discussion of art-teaching in the primary grades, elementary school, secondary school, col-

lege, and museum of art. A diversity of subjects, having little relation to one another, are discussed by prominent authorities. Because of the wide difference in subject matter treated, it is difficult to determine for which particular group of art educators the book will have the most interest.

564. TODD, JESSIE, and GALE, ANN VAN NICE. *Childcraft Art Book*. Chicago: W. F. Quarrie & Co., 1935. Pp. 64.

A portfolio of ample size, comprising sixty-three full pages of illustrations, which is planned to inspire children in creative art work. The first sixteen pages of the book are devoted to a comprehensive program of activities based on the social studies. The remaining pages give detailed instructions for projects in drawing, painting, design, construction, and modeling.

565. TOMLINSON, R. R. *Picture Making by Children*. New York: Studio Publications, 1934. Pp. 120.

Deals with the creative instincts of children in drawing and painting. Presents methods for developing creative expression. Profusely illustrated with examples of children's work.

INDUSTRIAL ARTS

HOMER J. SMITH

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566. BAWDEN, WILLIAM T. "Professional Meetings for Shop Teachers," *Industrial Education Magazine*, XXXVI (March, 1934), 75-80.

The author details a project that he carried out in connection with the graduate program at the Kansas State Teachers College, Pittsburg. The discussion is direct and forceful, covering such matters as the need for training in group leadership, the technique of conducting meetings, the handling of individual and committee assignments, and the conduct of conference periods.

567. CAMPBELL, H. D. "High-School Mechanical Drawing," *Industrial Arts and Vocational Education*, XXIII (October, 1934), 316-17.

A brief and excellent article concerning drawing as a cultural and a vocational subject. Three charts help the reader to appreciate the place of drawing in modern life, its main types or divisions, and its relations to other curriculum offerings.

568. CRAMLET, ROSS C. "Arguments for Industrial Arts," *Industrial Arts and Vocational Education*, XXIV (April, 1935), 107-8.

The author provides a list of fifty reasons why industrial-arts work should be a part of the system of general education.

569. FALES, ROY G. "Industrial-Arts Teaching Content," *Industrial Education Magazine*, XXXVI (September, 1934), 185-91.

The author stresses the need of more informational work in connection with the teaching of industrial arts. He offers exceedingly practical ideas about content and suggestions on how to plan so that the necessary time may be allotted. Twelve classifications of materials are named, such as structural and aesthetic design, geography, occupational information, and products of industry.

570. GARD, THERON DAVID. "Information Topics in Junior High School Wood-working," *Industrial Education Magazine*, XXXVII (May, 1935), 161-63.

A brief report of a study in which ninety-one industrial-arts teachers and nine leaders co-operated. The present practices of the teachers in using information topics were checked against the recommendations of the leaders.

571. GRAY, ROLLAND O., and HUNTER, WILLIAM L. *Index to 2500 Books on Industrial Arts Education and Vocational Industrial Education, 1820-1934*. Ames, Iowa: Industrial Arts Department, Iowa State College of Agriculture and Mechanic Arts, 1935. Pp. 108.

A helpful list of special-field publications, limited strictly to books. More than twenty-five hundred items, chiefly representative of the industrial subjects commonly found in the schools, are included in twenty-one classifications. Although there are no annotations, the list should be of much continued usefulness to industrial teachers and supervisors.

572. HUNTER, WILLIAM L., and LIVINGSTON, EVERETT G. *A Guide to Magazine Articles on Industrial Arts Education and Vocational Industrial Education*. Ames, Iowa: Industrial Arts Department, Iowa State College of Agriculture and Mechanic Arts, 1934. Pp. 76.

Two careful workmen have prepared a helpful list of more than fifteen hundred articles, well within the bulletin title, which have appeared from 1920 to 1934. There are no annotations, but the publication is of high value for numerous types of educational workers. It will prove especially helpful for teachers in the special field who do not have access to well-equipped libraries.

573. NORRIS, HUGH. "Rating the Department," *Industrial Arts and Vocational Education*, XXIV (May, 1935), 133-36.

An illustrated discussion of how an industrial-arts department may be rated. The author gives and explains a detailed rating scale of a hundred points, the main divisions of which are: (1) "[Factors] Administrative in Nature," (2) "Teaching Forces," (3) "Physical Equipment," (4) "Pupils," (5) "Subject Matter," and (6) "Extra-Curriculums." Each division or set of factors is particularized by means of specific questions.

574. ROBERTS, WILLIAM E. "A Program for Instruction in Industrial Arts for the Junior High Schools," *Industrial Education Magazine*, XXXVII (March, 1935), 64-72.

A forward-looking presentation by a man whose views have been highly prized in the special field for a quarter-century. Roberts writes clearly and directly about objectives, subject matter, methods, instructional materials, testing, and class and department organization.

575. "School Shop Annual, 1935 Edition," *Industrial Arts and Vocational Education*, XXIV (February, 1935), 33-68 and 1A-56A.

A special edition of a special journal devoted to discussion of types of school shops, courses, and plans of management. It contains lists of equipment and supplies, is profusely illustrated, and carries more than the usual amount of

advertising material. It is the eighth "School Shop Annual" issued by the Bruce Publishing Company for the improvement of industrial education.

576. SMITH, HOMER J. "A Program of Industrial Education," *Industrial Education Magazine*, XXXVI (January, 1934), 1-4.

Prepared originally as a radio talk, this paper is a popular discussion of the function of industrial courses in the several administrative units or at the several levels of the public-school system. The article will be of more practical interest to school administrators and boards than to teachers in the special field.

577. *Standards of Attainment in Industrial-Arts Teaching*. Final Report of the Committee as Presented at the Pittsburgh Convention, Friday, December 7, 1934. Washington: Industrial Arts Section of the American Vocational Association (1212 Vermont Avenue), 1934. Pp. 92.

This excellent bulletin covers completely the work of a committee appointed in 1928, which has made five preliminary reports to the association. It affords an excellent statement of the "Objectives of the Industrial-Arts Teacher" and the means of attaining these values in the lives of pupils and in whole-school results. Lists of learning units in eleven industrial subjects are provided, and there are worth-while suggestions on the planning of courses, the conduct of classes, the selection of projects, and the measurement of pupil progress.

578. *Supervised Correspondence Study*. Report of a Conference held at Teachers College, Columbia University, August 8, 9, 10, 1934. Scranton, Pennsylvania: International Textbook Co., 1934. Pp. 66.

This report summarizes developments in the practice of extending the school offering by means of correspondence instruction. The history of the plan, advantages, objections, relation to guidance programs, local supervision of the work, and costs are covered in a helpful way. An excellent annotated bibliography is supplied which includes writings on this new school service in more than twenty nations in addition to the United States.

579. VANCE, C. E. "Industrial Arts from the Viewpoint of the Superintendent," *Industrial Education Magazine*, XXXVII (March, 1935), 57-63.

This intelligent and forward-moving discussion will be read with interest and profit by school administrators of general responsibility as well as by teachers and supervisors in industrial education. The changing student personnel and the new problems of the school service are set forth, with special reference to the offerings and practices in the industrial arts.

580. WEAVER, G. G., and ERICSSON, E. S. (Compilers). *Bibliography of Technical and Industrial Motion Picture Films and Slides*. New York: Beatrice Finn, Librarian, Industrial Teacher-training Library (155 West Sixty-fifth Street), 1934. Pp. 182.

Lists 1,058 films and 218 sets of slides on subjects appropriate for school use, chiefly technical and industrial. Films are listed under twenty-seven headings and many subdivisions. Slides are likewise conveniently classified. Annotations for all items give sources, descriptions, and conditions of sale or rental.

HOME ECONOMICS¹

BEULAH I. COON

United States Office of Education

581. FLORIDA STATE DEPARTMENT OF PUBLIC INSTRUCTION. *Home Economics Course of Study for Florida High Schools: Volume II, Part VII, Grades VII-XII*. Tallahassee, Florida: State Department of Public Instruction, 1935. Pp. 194.

One of the bulletins in the series resulting from Florida's curriculum-revision program. The work of Grades VII and VIII centers in the girl's participation in home activities and her solution of her personal problems.

582. GOSLING, THOMAS W. "Home Economics: A Fundamental in the Curriculum," *Practical Home Economics*, XIII (July, 1935), 207, 216-17.

A brief history of home-economics development as a part of the school curriculum is supplemented by an emphasis on its value now and the need for it to emphasize increasingly the social problems of the home.

583. HERRINGTON, EVELYN M. *Homemaking—An Integrated Teaching Program*. New York: D. Appleton-Century Co., Inc., 1935. Pp. xii+206.

A description of the way in which all homemaking activities are articulated into a home program with an apartment used as the setting. Schedules for activities are developed with the pupils, and responsibilities are rotated so that habits, skills, management, and responsibility for the "family group" and for other pupils who use the apartment are accepted in a sequence which is progressively difficult.

584. MCALLISTER, MRS. GEORGE, and HYMAN, MARY. *Course of Study in Homemaking for the Elementary Schools, 1934-1935*. Concord, North Carolina: Cabarrus County Board of Education, 1935. Pp. 16.

Describes a plan for utilizing homemaking activities and interests of pupils as a basis for the elementary-school program in rural schools.

585. McDougall, HELEN I. "When Sixth Graders Care for Children," *Practical Home Economics*, XII (December, 1934), 359, 370, 372.

A survey indicated that more than half the girls enrolled in Grade VI took care of preschool children in their own families or as a means of earning money. A unit centered in the care of children during play hours was organized.

586. MILLER, ELLEN, and OTHERS. "A Program for Education in Family Living in the Elementary Schools." Detroit, Michigan: Ellen Miller (Merrill-Palmer School, 71 East Ferry Avenue), 1933. Pp. 120 (mimeographed).

¹ See also Item 209 in the list of selected references appearing in the March, 1935, number of the *School Review*.

A program for education in family living is outlined, giving objectives, topics of study, activities, and outcomes for each grade from kindergarten through Grade VI. This program is the result of a series of experiments in Detroit schools.

587. RAITT, EFFIE I. "The Nature and Function of Home Economics," *Journal of Home Economics*, XXVII (May, 1935), 265-73.

Home economics is described as a subject integrated around "use" rather than in a "logical relationship," and its service is that of applying other sciences and arts to situations to which the individual must make adjustment from birth to death.

588. ROCKWOOD, LEMO DENNIS. "Problems of the Home Economics Teacher—A Symposium: Social and Family Relations," *Journal of Home Economics*, XXVII (March, 1935), 159-62.

Summarizes a national study of the teaching of social and family relations at the elementary- and high-school levels in various parts of the country. In the elementary school and the junior high school this program should be included as a part of existing courses taught by the regular teacher with optional assistance available from the home-economics teacher or another especially prepared teacher.

589. SHEFFER, W. E. "The Place of Home Economics in a Functioning Curriculum," *Journal of Home Economics*, XXVII (September, 1935), 409-14.

Home economics is presented as a necessary part of the modern curriculum because it gives an insight into the oldest and the most essential institution of our modern civilization, the home and family, and because it functions in seven different ways in developing young people.

590. VAN LIEW, MARION S. "Home Economics in the Grades," *New York State Education*, XXII (November, 1934), 141-42, 173-74.

The opportunities for correlating home-economics work with the program in each of the grades are illustrated, and possibilities are given for specific emphasis on home and family life which would fit into the centers of interest likely to be used with pupils in various grades.

591. VIRGINIA STATE BOARD OF EDUCATION. *Tentative Course of Study for Virginia Elementary Schools, Grade I-VII*, pp. xiv+560, and *Tentative Course of Study for the Core Curriculum of Virginia Secondary Schools, Grade VIII*, pp. xiv+320. Richmond, Virginia: State Board of Education, 1934.

Reports of the state-wide program of curriculum revision are based on a center of interest for each grade. Six major functions of social life are emphasized in the first two grades and eight in Grades III-VII. Home-life content permeates the first seven grades and is apparent in the social-science and the natural-science work in Grade VIII.

LIBRARY TRAINING¹

EVANGELINE COLBURN

The review of the literature on library training published in the past year indicates that frequent reference is made to the need of the school principal's understanding the function of the library. The trend of thought seems to be that the school library cannot take its proper place in education until school administrators generally appreciate its worth.

592. DICKINSON, C. W., JR. "How May Library Instruction Be Integrated with Curricular Subjects and Whose Should Be the Responsibility for Integrating Such a Program—the Teaching Staff or the Library Staff?" *Peabody Journal of Education*, XI (May, 1934), 272-75.

Outlines library habits and lessons for Grades I-VII.

593. GREEN, EDWARD. "Schools and Libraries: A Lesson in Co-operation," [London] *Times Educational Supplement*, No. 998 (June 16, 1934), 196.

A brief and concise discussion on training children to use libraries. Typical examples of library lessons and tests are included.

594. MCPHERSON, DOROTHY. "Stimulating Children's Reading Interest," *Wilson Bulletin for Librarians*, IX (March, 1935), 369-70.

A brief description of methods and devices which may be used in children's libraries to stimulate interest in books and reading.

595. ROBINSON, ALICE PAGE. "The School Library in Reading Improvement," *American Childhood*, XX (November, 1934), 28-30.

Specific description of a study of Holland made by a fourth-grade class during library reading periods, showing how the children were introduced to reference materials and how their experience was enriched through the use of the library.

596. SHERLOCK, ESTHER. "Guidance in the Library," *High Points in the Work of the High Schools of the City of New York*, XVI (October, 1934), 27-31.

Presents the child's problem in using the library and its relation to vague assignments. Emphasizes that teachers should know the contents of books and should give proper guidance in reference work.

597. SHIELDS, KATHARINE. "Correlating the School Libraries," *Wilson Bulletin for Librarians*, IX (February, 1935), 307-10.

Describes library activities engaged in by children in the elementary school, outlines the year's work in library science for high-school pupils, and stresses the importance of inculcating from early school days basic library science which will serve pupils in future work.

¹ See also Item 70 in the list of selected references appearing in the February, 1935, number of the *School Review*.

598. WILSON, LOUIS R. "Promoting Abilities and Interests through the School Library," *Elementary School Journal*, XXXIV (June, 1934), 737-48.

Stresses the fact that school men generally must have fuller realization of the significance of the use of library materials. Lists interests and abilities which schools should promote through the library and suggests ways and means of attaining them.

599. WOOD, VELMA STOREY. "General Aims of a School Library," *Library Journal*, LX (February 15, 1935), 160.

Outlines briefly the aims of the school library and suggests ways of training children to work independently and intelligently, with the view of preparing them to use libraries in later life.

HEALTH AND PHYSICAL EDUCATION¹

C. H. McCLOY

University of Iowa

600. HOEFER, CAROLYN, and HARDY, MARTHA CRUMPTON. "Some Influences of a Health-Education Program during the Elementary-School Years," *Elementary School Journal*, XXXV (January, 1935), 368-82.

A partial report of a study which tends to show that children receiving special health education make faster and better school progress than those not receiving special help.

601. HOEFER, CAROLYN, and HARDY, MARTHA CRUMPTON. "The Rôle of Health in the Child's Development," *Elementary School Journal*, XXXV (February, 1935), 423-39.

Presents evidence that general health may be a significant factor in the rate of physical growth of the child during elementary-school years and that good health is important to the child's mental efficiency.

602. IRELAND, ALLEN G. "Essentials of the School Health Program," *Journal of Health and Physical Education*, V (September, 1934), 15-17, 44-45.

A succinct statement by a state administrator of the organization of the various aspects of the school health program.

603. IRELAND, ALLEN G. "The Administration of Physical Education," *Journal of Health and Physical Education*, VI (February, April, and June, 1935), 7-9, 59-60; 18-22, 63; 24-26, 63.

An excellent summary of administrative problems and methods of meeting them for both elementary and high schools.

604. JONES, HIRAM A. *The Administration of Health and Physical Education in New York State*. Teachers College Contributions to Education, No. 622. New York: Teachers College, Columbia University, 1934. Pp. vi+156.

¹ See also Items 264, 265, 267, 269, 274, 275, 278, 280, and 284 in the list of selected references appearing in the March, 1935, number of the *School Review*.

A detailed statement of the organization of physical education in the public schools of New York. This organization has developed to the point where application of the principles may easily be made to almost any urban-school situation in the country.

605. MASON, BERNARD S., and MITCHELL, ELMER D. *Social Games for Recreation*. New York: A. S. Barnes & Co., Inc., 1935. Pp. vi+422.

A splendid compilation of teaching material in the recreation field.

606. MONTAGUE, KIRK. "A Curriculum Study of Physical Education Activities for the Boys and Girls of the Seventh, Eighth, Ninth, and Tenth Grades of the Public Schools of Norfolk, Virginia," *Research Quarterly of the American Physical Education Association*, VI (May, 1935), 92-104.

A description of a method of constructing a curriculum in physical education by securing from pupils an expression of their interest in activities selected from several courses of study.

607. SIEMSEN, WALTER J., and DOLAN, G. KINDRED. "The Problem of Body Mechanics in Elementary and Secondary Schools," *Journal of Health and Physical Education*, VI (March, 1935), 10-12, 78-79.

A discussion of some practical problems commonly found in the field of corrective physical education.

608. SUPPER, PHILOMENA. "The Curriculum in Health Education for Teachers of Elementary Grades," *Research Quarterly of the American Physical Education Association*, V (October, 1934), 107-22.

Points out the importance of adequate training for teachers of health education. Includes a bibliography on health education.

609. WARNOCK, FLORENCE M. "Opportunities for Teaching Health in the Elementary School through Motor Activities," *Journal of Health and Physical Education*, V (October, 1934), 15-17, 42-43.

A method of correlating the physical-education and health-education activities in the schools.

610. WILLIAMS, JESSE FEIRING, and SHAW, FANNIE B. *Methods and Materials of Health Education*. New York: Thomas Nelson & Sons, 1935. Pp. 332.

A compendium of health-education materials drawing largely on the scattered resources in the field.

Educational Writings

REVIEWS AND BOOK NOTES

Education in the primary school.—A significant contribution to the literature on elementary education has appeared in a volume dealing with the organization, objectives, content, and procedures of the primary school.² In the preparation of the book the authors were guided by the following purposes: "to formulate an organized set of principles dealing with the first step in formal education; to cover systematically and completely the work of these primary grades; and to make our discussions so detailed and specific that the teacher may learn how to proceed and may have at hand definite criteria by which to judge the outcomes of her work" (p. v).

The first part of the book (chapters i-iv) attempts to lay a basis for the later presentation and discussion of the various phases of the primary-school curriculum. The thought in these early chapters is based on the thesis that the rôle of education is "to add the social to the physical inheritance of man" (p. 3). Chapter i shows clearly the significance of speech, reading, writing, spelling, music, number, and graphic art as phases of the social heritage of every child.

Chapters ii and iii are devoted to issues and problems involved in the institutional care of children. Among the issues considered are the place of the nursery school and the kindergarten and the beginning and end of the period of primary instruction. Among the problems raised and discussed are the following: At what age should children be sent to school? In what types of activity shall they engage on entering school? At what age should formal elementary instruction begin? How shall we establish the boundary line between the pre-elementary training and the work of the primary school? At what age can the preliminary step in formal education be regarded as complete? In the manner in which these issues and problems are raised and discussed, the reviewer seems to sense the influence of Morrison's teaching.

In chapter iv, "Curriculum and Method," the objectives for the primary grades are separated into two classifications, designated as "Fundamental Processes" and "The Other Objectives." The first classification comprises reading, writing and spelling, number, music, graphic art, and speech. The second category includes health, worthy home membership, leisure, citizenship, ethical

² John Louis Horn and Thomas White Chapman, *The Education of Children in the Primary Grades*. New York: Farrar & Rinehart, Inc., 1935. Pp. x+292.

character, and introduction to nature and society. For the attainment of these objectives the authors recommend organized and habit-forming drill for the "fundamental processes" and group projects for the "other objectives." In the development of skills the authors emphasize a "straight attack on mastery" as "opposed to reliance on incidental learning as the principal method" (p. 48). For meeting the problem of individual variation, "individualization of instruction" is recommended as "far superior to the current practice of skipping and repeating grades" (p. 49).

In their treatment of the content and the measurable-achievement phases of the "other objectives," the authors state that they must of necessity be vague. The reviewer has the feeling, however, that the discussion could have been made more constructive and helpful if the authors had analyzed the vague and nebulous phrase "other objectives" into the specific activities which comprise health, worthy home membership, and the "other objectives" and had then shown how the primary school can help to attain these objectives.

With the first four chapters as a background, there follows a systematic discussion of the "skill" and the "non-skill" objectives. Three chapters are devoted to reading; three, to handwriting and spelling; two, to number; two, to speech; one, to music; and two, to art. The important work of training for character, training for health, and introducing the child to his social and natural environment is disposed of in three short chapters totaling only forty-six pages. Education for leisure, education for citizenship, and education for worthy home membership are not given systematic treatment, the assumptions being that the first of these objectives is "fully covered" by the discussion of music, art, literature, physical education, nature study, and handwork and that training for citizenship and for worthy home membership is implied in training for character. To the reviewer this second assumption seems unwarranted because it implies that all that is needed to perform the activities involved in good citizenship and home life is the possession of certain character traits.

The treatment accorded to literature as a means of primary-school education is disappointing. Although the importance of well-selected literary material in the development of desirable social traits and attitudes has become rather generally recognized, the subject receives only scant attention in this book. Moreover, in the section devoted to literature one may well question some of the counsel that is given. The teacher is advised, for example, "to continue the traditional school practice of memorizing" (p. 179).

The treatment of the fundamental processes is adequate and timely and well organized. The discussion deals, for the most part, with content, teaching procedures, and desirable outcomes. In the discussion on reading much stress is placed, and rightly so, on the determination of reading readiness. However, the importance of discovering learning readiness in handwriting, spelling, number, and the other learning fields seems to have been entirely overlooked.

This book has much to commend it. The discussion of reading, for example,

is adequate and very much in line with the developing science of education. Moreover, the volume raises many significant educational issues. The reviewer cannot escape the feeling, however, that the book would have been considerably improved had the authors faced the world of the primary-school child more objectively and utilized the results of research more fully.

MIAMI UNIVERSITY

WALTER SCRIBNER GUILER

Relations of church and state in the United States.—During the celebrated Scopes trial it was not always clear whether the fundamentalists or the American Civil Liberties Union assumed the more militant attitude in prosecuting their opponents in the public press and elsewhere. The opposing militancy in the two factions probably resulted in a more common-sense understanding of the issues than could have been accomplished by less display of heat. Similarly, in view of the emphasis that those interested in including moral and ethical training in the public schools placed on the possibility of public-school co-operation with religious organizations, it is interesting to pick up a well-organized brief to the effect that any recognition of religious organizations tends to create an unholy alliance between state and church dangerous to the theory of freedom of religious belief. Dean Johnson, of Union College, has produced such a brief in his discussion of church-state relationships in the United States.¹

Dean Johnson first considers the reading of the Bible, the use of prayer, and the singing of religious hymns in religious exercises in the public schools. He then considers what he terms "Sectarian Influences Other than Bible Reading in the Public Schools," including such items as excusing pupils for religious instruction, allowing credit for religious instruction, public aid of sectarian schools, use of public-school buildings for religious services, religious exercises in Indian schools, and anti-evolution laws. He finally considers the matter of Sunday legislation. The author reviews the early Colonial attitude toward the relations of church and state and summarizes the development of religious influences in the schools. He carefully reviews constitutional, statutory, and administrative provisions with regard to the topics that he discusses and reviews with equal care the Supreme Court decisions of the states and of the United States. When he reviews, summarizes, and discusses conflicting provisions or decisions, he makes plain his own feeling that whatever the state does with any apparent motive to encourage the teaching of religion, or anything that it does in co-operation with organized religion, is probably out of line with American political theory. For instance, he is skeptical of allowing public-school credit for religious instruction given by religious teachers, and he holds that Sunday legislation is contrary to the principles of American law. The book is well annotated and carefully in-

¹ Alvin W. Johnson, *The Legal Status of Church-State Relationships in the United States: With Special Reference to the Public Schools*. Minneapolis, Minnesota: University of Minnesota Press, 1934. Pp. x+332. \$3.00.

dexed. It is probably the best summary of religious influences on legislation and Supreme Court decisions that has been published.

DUKE UNIVERSITY

HOLLAND HOLTON

Educational legislation and school control.—When the United States Constitution was adopted, no specific provision was made for public education. The tenth amendment to the Constitution leaves education as one of the unmentioned powers reserved to the states of the United States. Consequently, public education is generally regarded as a state function. For years the legislatures of the states pursued the policy of delegating extensive powers and duties to the governing bodies of local administrative units. Their purpose was to promote the cause of public education and to encourage local initiative in carrying on the work of the schools. In recent years some states have moved to regain some of the powers and duties which they formerly delegated to the local administrative units. A current study¹ of the educational legislation since 1900 in three states—North Carolina, Maryland, and New York—purports to show the extent to which centralization, that is, the transfer of educational control from the local administrative unit to the state, is taking place.

Near the beginning of this study the author sets up three criteria which he deems desirable to bear in mind in an evaluation of the significance of certain centralizing trends. He then presents an analysis of the educational legislation in North Carolina and Maryland classified under the headings: state support; buildings; curriculum; and teacher training, certification, and salaries. The educational legislation in New York State he has classified under the following headings: state support, the University of the State of New York, Regents' examinations, judicial power of the commissioner of education, teacher training, and the curriculum. This study of the educational legislation enacted since 1900 in three important states shows a development of centralizing tendencies, but there is no evidence which indicates that centralization is being effected under a controlling philosophy of government or of educational administration. The author of this study emphasizes the fact that the issue of central versus local control is one of the most important problems facing those who would develop a constructive legislative program for a state school system. Therefore, in conclusion he presents nine principles that may be useful for administrators and legislators in evaluating the proposed legislation which is brought to them for their criticism or approval.

This study represents a careful piece of work; it is well organized and treats a topic which is significant in educational administration. Since its scope is limited

¹ George D. Strayer, Jr., *Centralizing Tendencies in the Administration of Public Education: A Study of Legislation for Schools in North Carolina, Maryland, and New York since 1900*. Teachers College Contributions to Education, No. 618. New York: Teachers College, Columbia University, 1934. Pp. vi+124. \$1.50.

to three states, the practices of which may not be representative of practices in the remaining forty-five states, similar studies of the educational legislation in other states may profitably be pursued by those interested in this phase of educational administration.

C. B. ALTHAUS

UNIVERSITY OF KANSAS

The character of the learning process.—The literature of both general and educational psychology has in recent years contained an abundance of theoretical discussions and of experimental reports bearing on the problem of the nature of the learning process. These contributions relate to many aspects of the phenomenon of learning, and they frequently present divergent and even contradictory results and conclusions. A recent publication¹ represents a significant attempt to make a critical analysis of some of the mass of evidence which has been accumulated and to organize and interpret it in terms of the major problems which constitute the field of the psychology of learning.

The book consists of seventeen chapters, including an introduction and a conclusion. A series of chapters dealing with the various aspects and types of conditioning is followed by treatment of the effects of repetition in learning, the part played by emotions in learning, forgetting, forming and breaking habits, reward and punishment, the learning of skills, the rôle of intention in learning, and perception and thought. The entire volume is centered in the phenomenon of conditioned responses; the author assumes the position that all learning is a matter of conditioning and sets forth his conception of the psychology of learning in these terms.

The reader who is interested in the theory of learning will find the volume stimulating and helpful. The author has welded together a comprehensive and consistent explanation of the various problems of learning and has examined the explanation in a critical fashion in the light of numerous conflicting claims. He has made a genuine contribution in showing how his position is applicable to, and defensible at, a great many different points. The reader may disagree with the author's explanation in numerous instances, and especially with the fundamental position that all learning is a matter of conditioning, but he will be stimulated by, and impressed with, the carefulness and the completeness with which the basic point of view has been thought out and presented. He will be interested also in the many illustrations of learning drawn from everyday life that are used to clarify the discussion.

Although the book represents a fundamental attack on numerous problems of learning, the reader who wishes to be enlightened with respect to the learning process as it takes place in the school in the study of various subjects will discover little that is *directly* helpful to him. He will find that at most points a wide

¹ E. R. Guthrie, *The Psychology of Learning*. New York: Harper & Bros., 1935. Pp. viii+258. \$1.50.

gap exists between the theoretical matters set forth in the book and this particular aspect of practice. This statement is intended to imply not that the theory is necessarily impractical but only that the reader will have to depend on his own efforts to bridge the gap—a task which will be exceedingly arduous except for the most gifted and mature student. Of course the teacher should possess an understanding of the fundamental character of learning, but he should also be able to understand the many practical cases of learning which he encounters in the schoolroom. The volume under consideration should be much more helpful in attaining the general understanding than in securing the more specific knowledge.

EDWARD F. POTTHOFF

UNIVERSITY OF ILLINOIS

The nature and treatment of stammering.—In his book, *Stammering and Cognitive Defects of Speech*, published more than a score of years ago, Bluemel was one of the first in this country to show that stuttering is due, not to physical, but to psychological causes. Since that time Bluemel has continued his study of the cause and the treatment of stuttering, and his new book¹ expresses his latest views on this subject.

The publisher has done well by the book. It is in large print, well paragraphed, and easy to read. Its fourteen chapters discuss the conditioned reflex, the development of language and speech, inhibitions, conflict, difference between primary and secondary stammering, various theories of stuttering, and the author's method of treatment.

The chapter on the conditioned reflex is especially clear and helpful. The author believes that speech is developed as a conditioned reflex and that stammering is caused by an inhibition of the conditioned reflex which underlies speech. Stammering is divided into two parts, primary stammering and secondary stammering. The author says that during the early or formative years of life the conditioned reflex of speech is insecurely established and, consequently, is subjected to the hazard of inhibitions. When adult life is attained, the conditioned reflex is firmly fixed and no ordinary circumstances of life can efface it. "Frequently in the developmental period of speech there is evident for years the interplay of conditioned reflex and inhibition, with first one and then the other in the ascendant. The child speaks now fluently and now with stammered speech" (p. 70). In some children there is "an inadequacy of the conditioned response so that speech is defective even apart from the matter of inhibition" (p. 70). The author maintains that all children stammer to some extent during the learning period of speech and that transient inhibition is frequently observed among normal-speaking children. During the primary stage of stammering the impediment is nothing more than the partial inhibition of the conditioned reflex

¹ C. S. Bluemel, *Stammering and Allied Disorders*. New York: Macmillan Co., 1935. Pp. vi+182. \$2.00.

of speech, but, if this stage continues for several years, there occurs secondary stammering. In this state there is an emotional condition. The emotional reaction occurs not only to words and letters but also to personal situations. In this secondary stage there is also confusion of thought. The patient is often bewildered and cannot understand what is said to him. Bluemel does not believe that stuttering of this secondary type occurs because of fear or anxiety. He says, "When stammering arises from associational influences, the disturbance in speech results from conditioned inhibition and not from the emotion which the situation may chance to recall" (p. 77). Again he says, "Observation shows that fear and embarrassment do not of themselves cause stammering" (p. 119).

The Travis-Orton theory that stuttering is caused by a conflict between the two hemispheres of the brain is discussed, and the theory is considered to be of "doubtful validity." Nevertheless, Bluemel pays the two originators of the theory the compliment of saying that their theory "is significant in the history of stammering, for it represents the first major attempt to solve the problem of stammering in neurological terms" (p. 141). Of the work of Travis, he says, "We venture the opinion that the important contribution of this investigator is not his theory of the dominant gradient but his conception of stammering as an extensive neurological disturbance in which the impediment of speech is merely a conspicuous symptom" (p. 142).

Bluemel's discussion of the treatment of stammering is brief but adequate and stimulating for those who are doing speech-correction work. Probably no other person in this country has made such extensive studies of the stuttering schools and of the methods used by them in the treatment of stuttering. Vocal exercises, breathing exercises, and phonetic training are used so widely in the treatment of stuttering that it is well that the author emphasizes the inadequacy of such methods. He says:

The inhibition theory of stammering leads to certain inevitable conclusions regarding the problem of treatment. It becomes evident, for instance, that many accepted forms of treatment are misdirected. There is no logical purpose in breathing exercises, vocal exercises, articulation exercises, and many of the formal procedures of speech-training that one frequently encounters in the stammering schools and in the speech classes of the public educational systems. These drills and exercises are futile, for they aim neither at establishing the conditioned reflex of speech nor at removing the inhibition that constitutes the impediment [p. 151].

Surely the time has come when there can be general agreement with the author's statement that it is useless to teach the stammerer how to breathe and talk or to familiarize him with the anatomy and physiology of his speech organs. "Children and morons speak plainly despite their lack of anatomical and physiological learning" (p. 152). In the treatment of primary stuttering the author advocates the establishment of the conditioned reflex of speech. This result is brought about through the auditory stimulus of speech, by reading slowly and carefully to the stuttering child a story, sentence by sentence. At first the child is not asked to respond, but later he is asked to repeat each sentence after his

mother. At first the mother speaks in unison with the child, and later on he speaks without this stimulus. Difficult words are pronounced for the child. Games in which speech is a part of the play are used. The proper conditioning of speech should be continued long enough so that the conditioning will not be lost when the treatment is stopped.

Although the reviewer does not agree entirely with the author's point of view on stammering, he feels that all teachers of speech correction are indebted to Bluemel for this stimulating and uncontroversial presentation of his latest conclusions concerning the cause and the treatment of stammering. No teacher of speech correction can afford to be without this book.

SMILEY BLANTON

AMERICAN SPEECH CORRECTION ASSOCIATION
NEW YORK CITY

A new history of our country for elementary schools.—In the Preface of a textbook in history¹ the authors state that pupils in Grade VII should study the origins of American institutions; in Grade VIII, the development of institutions in the United States; and in Grade IX, American problems in the light of their historical settings. The volume under review was written for Grade VIII. This scheme and sequence, which the authors claim is the best, is not in accordance with that of the Commission on the Social Studies of the American Historical Association. This commission recommends for Grade VI, the systematic narrative history of America, including European beginnings; for Grades VII–IX (junior high school level), a systematic development of world-civilization; for Grade IX or X, world-geography; and for Grades XI and XII, the major phases of present-day society, including major social, economic, and political issues and problems.

This book claims to be functional in the sense that it "ought to help youth make the necessary adjustments to life" (p. iii). It may fairly be claimed to be of assistance in accomplishing this purpose. It is organized in eleven units, with a combination of logical and chronological sequence. The titles of the units are brief and simple, yet significant and suggestive. The chapter headings are similar to those employed in many textbooks in history for senior high school and elementary college courses, however, and on this basis may be criticized as not particularly functional. The volume is written in a more attractive and challenging style than most elementary textbooks in this field.

Each unit has a preview, which serves as a brief connecting link between units. This scheme suggests the "overview" employed in some types of unit instruction in social studies. This same type of overview was noted by the writer in his review of two books on the backgrounds of American history appearing in the June, 1935, issue of the *Elementary School Journal*.

¹ Smith Burnham and Theodore H. Jack, *America, Our Country*. Philadelphia: John C. Winston Co., 1934. Pp. xvi+636. \$1.60.

The illustrations are suggestive but not conventional. Many of them were sketched by hand and reproduced in print. Maps are relatively scarce, but those that are included are really significant. Teaching procedures and suggestions are scant, but suggested subject matter, problems, and projects are abundant. One unfortunate feature of the book is found in the Appendix; that is to say, the texts of the Declaration of Independence and of the Constitution of the United States are printed in very small type.

Some notably good features of the book are illustrated in the discussion of the geographic setting and influence in the chapters on "Our New-World Home," "The Coming of the Revolution," and "The War for Independence," and in the attractive narrative style and thread of connection between paragraphs, topics, and divisions of the text.

This book illustrates, as do most of the more recent publications, the substantial improvement that is taking place in the writing of textbooks, particularly in their psychological adaptation to the readers for whom they are designed. In this respect this book has a distinct contribution to make.

As a final observation, the reviewer has the following question to raise: In the current confusion and variety of organization of treatment of both elementary- and secondary-school social-science subjects, *what are the authors of textbooks and the school administrators to do in applying the subjects to the new curriculum trends?* One such curriculum is that suggested by the new Virginia revision program, which builds and organizes its whole curriculum for both elementary and secondary schools on *eleven major functions of society* and just *one center of interest* for each year—a revolutionary type of scope and sequence and general organization for a "functional" or "core" curriculum.

R. E. SWINDLER

UNIVERSITY OF VIRGINIA

New textbooks in geography.—The book under review² is the final volume of a five-book series in elementary geography (the earlier titles being *Home Folks*, *World Folks*, *American Lands and Peoples*, and *Foreign Lands and Peoples*). In the present volume a survey of the world is made through a study of world-industries. The material is organized in terms of the great basic industries of mankind, the greater portion of the space being given, naturally, to agriculture and manufacturing.

Hunting, fishing, and the forest industries are presented by regional studies world-wide in scope, for example, tropical grasslands and tropic forests. For agriculture the materials are grouped by products in their world-settings. This arrangement is also used in presenting mining, which is, in addition, included in the organization of manufacturing. A discussion is given of the development and the significance of important manufacturing industries and industrial areas of

² J. Russell Smith, *Our Industrial World*. Philadelphia: John C. Winston Co., 1934. Pp. viii+390+20 plates. \$1.60.

the world. There are a short chapter on transportation, communication, and trade, partly historical in character, and a summary section on type nations in the world-trade. A chapter on mathematical geography is practically an appendix.

The book is written in Smith's usual lucid and interesting style. Because of the character of the material and the increased maturity of the pupils for whom the book is written, little use is made of concrete human stories, such as were found in the preceding volume. The book includes an abundance of pertinent black-and-white production and location maps, diagrams, diagrammatic figures, graphs, and pictures. Twenty plates of political and physical maps, uniform in style with those in the other books of the series, are given together in a section at the end of the book. A statistical appendix presents a mine of valuable data. A reasonably simplified climatic-regions map of the world is introduced in color and is used to aid in the study of industries.

Although *Our Industrial World* is essentially a study in industrial geography, thoughtful teachers who are seeking materials in the field of social studies will find it a timely contribution. One who studies the book intelligently cannot fail to realize its value in teaching an appreciation of the complex interrelations of the peoples of the world arising from their use of one another's products and from their competition with one another. Nor can one leave the book without sensing the possibilities in the story of development behind some of our present-day economic institutions. Equally important are the significant discussions of the present-day status of various industries and the pertinent pointing-ahead to possibilities and probabilities in the future.

The essential content of the five-volume series is incorporated in a two book series¹ by the same author. Both series are based on the so-called "single-cycle-plus" plan of organization, in which the work is introduced by a study of type regions, followed by as thorough a study of countries as space permits. Obviously, some of the materials of the first series had to be omitted, but most of the materials are combined in the new series. Book I contains the type studies and a detailed study of North America and our island possessions. Book II covers Europe, Asia, Africa, Australia, South America, and the United States in its special relations to the world. The latter part of the book is a condensed version of *Our Industrial World*. To the teacher who, of necessity or desire, must use a geography series of two rather than five volumes, the *Human Use* series presents an adequate alternative.

Like all of Smith's volumes, these books are characterized by a vigorous, direct, and simple style. Frequent use of concrete human illustrations adds to the interest of the country studies. Geographic relationships are stressed, and many provisions are made for the acquisition of geographic habits of thinking.

The mechanical makeup of the book is excellent. The type and the spacing

¹ J. Russell Smith, *Human Use Geography*: Book I, pp. x+482+34; Book II, pp. x+516+26+3 plates. Philadelphia: John C. Winston Co., 1934 (revised). \$1.52 each.

of the page make easy reading. The type studies in Book I for use with the younger children fittingly appear in rather large print. The small black-and-white maps, the diagrams, and the pictures are clear, well chosen, and well captioned. On the human-use maps of the continents the regions are marked with symbols which bear some resemblance to the land use; for example, little green pine trees mark the northern evergreen forests. Type pictures are placed around the margins of the maps, not on them. Political maps are clear and definite, but many of the physical maps have too many lines and names. Suggestions for additional exercises and tests are given at the ends of the sections. Much material is to be found in the up-to-date tables of the Appendix.

The Smith volumes are to be recommended highly.

RUTH R. WATSON

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GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

- AICHHORN, AUGUST. *Wayward Youth*. New York: Viking Press, 1935. Pp. xiv+236. \$2.75.
- FENTON, NORMAN, with the collaboration of JESSIE C. FENTON, MARGARET E. MURRAY, and DOROTHY K. TYSON. *The Delinquent Boy and the Correctional School*. Claremont, California: Claremont Colleges Guidance Center, 1935. Pp. 182. \$1.50 (paper), \$2.00 (cloth).
- INGRAM, CHRISTINE P. *Education of the Slow-learning Child*. Yonkers-on-Hudson, New York: World Book Co., 1935. Pp. xii+420. \$1.80.
- Readings in Psychology*. Edited by Charles E. Skinner. New York: Farrar & Rinehart, Inc., 1935. Pp. x+854. \$4.00.
- ROEMER, JOSEPH; ALLEN, CHARLES FORREST; and YARNELL, DOROTHY ATWOOD. *Basic Student Activities: Organization and Administration of Home Rooms, Clubs, and Assemblies*. Newark, New Jersey: Silver, Burdett & Co., 1935. Pp. xiv+368. \$2.20.
- TRYON, ROLLA M. *The Social Sciences as School Subjects*. Report of the Commission on the Social Studies of the American Historical Association, Part XI. New York: Charles Scribner's Sons, 1935. Pp. xiv+542. \$3.00.

BOOKS PRIMARILY FOR ELEMENTARY-SCHOOL TEACHERS AND PUPILS

- American Primers. Edited by Percy W. Bidwell. *Youth in the Depression* by Kingsley Davis, pp. 48; *Strikes* by Joseph J. Senturia, pp. 54; *Friends or Enemies?* by Julius W. Pratt, pp. 60; *Money* by Marc Rose and Roman L. Horne, pp. 50; *Crime* by Nathaniel Cantor, pp. 44; *Jobs or the Dole?* by Neal B. DeNood, pp. 54; *Business and Government* by John C. Crighton and Joseph J. Senturia, pp. 48; *The Farm Business* by Roman L. Horne, pp. 60; *You and*

- Machines* by William F. Ogburn, pp. 56. Chicago: University of Chicago Press, 1935. \$0.25 each.
- BRUECKNER, LEO J., ANDERSON, C. J., BANTING, G. O., and MERTON, ELDA L. *The New Curriculum Arithmetics* (Triangle Series): Grade V, pp. x+278; Grade VI, pp. x+278. Philadelphia: John C. Winston Co., 1935 (revised). \$0.60 each.
- BRUECKNER, LEO J., ANDERSON, C. J., BANTING, G. O., and MERTON, ELDA L. *The New Triangle Arithmetics*: Grade III, pp. vi+308; Grade IV, pp. vi+272. Philadelphia: John C. Winston Co., 1935 (revised). \$0.60 each.
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- GEHRES, ETHEL MALTBY. *Everyday Life Primer*. Philadelphia: John C. Winston Co., 1935. Pp. 140. \$0.48.
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- HADSELL, HARRY I. *Class Record Book*: Half-Year Edition. Boston: Ginn & Co., 1935. \$0.28.
- MASON, BERNARD S., and MITCHELL, ELMER D. *Active Games and Contests*. New York: A. S. Barnes & Co., Inc., 1935. Pp. viii+600. \$3.00.
- POWERS, SAMUEL RALPH; NEUNER, ELSIE FLINT; and BRUNER, HERBERT BASCOM. *Directed Activities*: I. A Workbook To Guide Pupils in Their Study of the World around Us. Boston: Ginn & Co., 1935. Pp. vi+114. \$0.40.
- SMITH, NILA BANTON. The Unit-Activity Reading Series: *Tom's Trip*, pp. 40, \$0.20; *At Home and Away*, pp. 144, \$0.56; *In City and Country*, pp. 176, \$0.60; *Round about You*, pp. 240, \$0.68; *Teacher's Guide for the First Year*, pp. iv+514 (preliminary edition). Newark, New Jersey: Silver, Burdett & Co., 1935.

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AND OTHER MATERIAL IN PAMPHLET FORM

- ELEAZER, R. B. *School Books and Racial Antagonism*: A Study of Omissions and Inclusions That Make for Misunderstanding. Atlanta, Georgia: Conference on Education and Race Relations (703 Standard Building), 1935. Pp. 8.
- Geographic Education in Elementary and Junior High Schools*: Suggestions for Developing Courses of Study in Geography. Pennsylvania Curriculum Studies. Bulletin No. 91. Harrisburg, Pennsylvania: State Department of Public Instruction, 1935. Pp. 184.
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for the Owatonna Art Education Project by the University of Minnesota Press, 1935. Pp. 44.

MANUEL, H. T. *Spanish and English Editions of the Stanford-Binet in Relation to the Abilities of Mexican Children*. University of Texas Bulletin No. 3532. Austin, Texas: University of Texas, 1935. Pp. 64. \$0.25.

"1000 and One": The Blue Book of Non-theatrical Films (eleventh edition). Chicago: Educational Screen, Inc. (64 East Lake Street), 1935. Pp. 144. \$0.75.

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Bulletin No. 3, 1935—*Parent Education Opportunities* by Ellen C. Lombard. Pp. 54.

Civilian Conservation Corps Vocational Series, No. 1—*Agriculture*: Outlines of Instruction for Educational Advisers and Instructors in Civilian Conservation Corps Camps. Pp. x+74.

Civilian Conservation Corps Vocational Series, No. 2—*Automobile Repairing*: Outlines of Instruction for Educational Advisers and Instructors in Civilian Conservation Corps Camps. Pp. x+64.

Civilian Conservation Corps Vocational Series, No. 3—*Automotive Electricity*: Outlines of Instruction for Educational Advisers and Instructors in Civilian Conservation Corps Camps. Pp. xii+80.

Report of California Conference on Problems of Professional Education in Health, Physical Education, and Recreation: San Francisco, April 12, 1935. Department of Education Bulletin No. 11. Sacramento, California: State Department of Education, 1935. Pp. vi+34.

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RIO, PEDRO E. Y. *Thirteen Educational Foundations and American Higher Education*. Philadelphia: Temple University, 1935. Pp. 108.

A Survey of the School Organization and School Plant of Powell County, Kentucky. Bulletin of the Bureau of School Service, Vol. VIII, No. 1. Lexington, Kentucky: College of Education, University of Kentucky, 1935. Pp. 66. \$0.50.

Toward the Development of Emotional Stability: A Case Study. Child Research Clinic Series, Vol. I, No. 5. Langhorne, Pennsylvania: Child Research Clinic of the Woods Schools, 1935. Pp. 14.

WALKER, MARGARET M. *A Study of High School Failures*. Philadelphia: Temple University, 1935. Pp. x+114. \$1.00.

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GRAHAM, BESSIE. *The Bookman's Manual: A Guide to Literature*. New York: R. R. Bowker Co., 1935 (fourth edition, revised and enlarged). Pp. xii+716. \$5.00.

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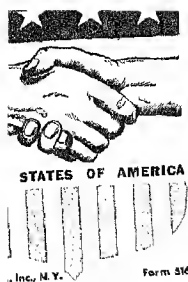
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Educational News and Editorial Comment

SHALL GRADE STANDARDS BE ABOLISHED?

In 1931 a committee composed of a number of associate superintendents and principals was appointed to consider the problems of articulation and integration in the public schools of the city of New York. The recently published report of the committee carries the recommendation that grade standards be abolished and that pupils in the elementary and junior high schools be promoted on the basis of school attendance and chronological age. The following statement with respect to the committee's recommendations is quoted from a recent issue of the *New York Sun*.

A revolutionary change in school procedure, whereby children will be advanced from grade to grade without necessarily having achieved definite standards of accomplishment, is recommended to Superintendent of Schools Harold G. Campbell in a report submitted by a committee of school officials after a survey lasting four years.

The group, known as the Committee on Articulation and Integration, was appointed in March, 1931, and is headed by Dr. Stephen F. Bayne, associate superintendent in charge of the elementary division. Others on the committee include district superintendents and principals of elementary, junior high, and high schools.

The recommendation to abolish grade standards of accomplishment is accompanied by the corollary that courses be so varied and enriched that pupils of every type of ability be given an opportunity to do school work within their range of ability.

The recommendation, if carried into effect, would virtually do away with non-promotions and put the city school system on a 100 per cent promotion schedule. That the idea was not acceptable to all members of the committee is disclosed in a foreword to its report. This proposition was approved by twelve of the fourteen members of the committee. Of the twelve who voted in the affirmative, two doubted its feasibility.

Not only would grade standards be wiped out under the committee's plan, but advancement from elementary to junior high school and from junior high to senior high school would be made largely on the basis of the time spent in the preceding unit and the age of the child.

"The elementary schools should send on to the junior high schools practically all pupils who have reached the chronological age of twelve or thirteen," the committee advises. "This presupposes that with a few exceptions they have been kept working up to their individual capacities. . . . The junior high school should transfer to a higher school of the secondary division all pupils who have pursued the junior high school course for the approximate required time."

As part of the committee's scheme the old eight-year elementary school would be discontinued, and the entire school system would be reorganized with a six-year elementary, a three-year junior high, and a three-year senior high or vocational high school. "Certificates of attainment" would be awarded to pupils who leave school before qualifying for a diploma.

Opinions in responsible quarters in New York seem to differ sharply with respect to the merits of the committee's recommendations. Commissioner James Marshall, who is Mayor La Guardia's appointee to the Board of Education, is enthusiastic in his support of the proposed changes. He is reported to have said:

"The report of the Committee on Articulation and Integration headed by Dr. Bayne appears to me to be the most important expression of educational philosophy coming out of the New York City school system in a generation. . . .

"It sets forth a plan of education which emphasizes the development of social human beings rather than the performance of certain routines which may over the course of years happen to give some factual information which will be retained in after life and may incidentally develop the characters of children so that they will be able to meet the world. This new emphasis accords with the best principles of modern education."

Associate Superintendent John L. Tildsley, on the other hand, regards the recommendations of the committee as "unworkable" and "dangerous."

"It is my conviction that, if any school system doesn't require completion of a task, it is failing in one of the first requisites of education. We have a sufficiently large number of boys and girls who will not put forth their best efforts if they know in advance that they will be promoted even if they put forth no effort whatsoever. They will not have done their appointed task, but they will be rewarded.

"The members of the committee may not mean what they have so clearly said, but if so, then I regard this as the most dangerous report ever made within my knowledge by any committee of the school system."

No doubt most parents and many teachers will share Associate Superintendent Tildsley's misgivings with respect to the committee's proposals. It cannot be denied, however, that there is in this country a growing dissatisfaction with promotion practices, and it is clear that this dissatisfaction is supported by a growing volume of evidence. In this connection it is pertinent to call attention to the results of an experiment conducted in Springfield, Illinois, and Decatur, Illinois, as long ago as 1918 and reported by B. R. Buckingham in the *Journal of Educational Research* for May, 1921. In the autumn of 1918 the schools of these two cities were badly disorganized because of a severe epidemic of influenza. Teachers were permitted to make their usual lists of pupils recommended for promotion and for failure, but pupils recommended for failure were promoted to the next higher grade along with pupils whose title to promotion was clear. Pupils who normally would have failed were placed on probation for a period of six weeks. Week-by-week records were kept for probationary pupils, and at the end of the six-week period teachers made recommendations as to the retention of pupils in the grades to which they had been advanced on probation. We quote from Buckingham's article certain comments on the reports on this and later experiments of the same kind.

I have already stated that 1,276 pupils from the high-second through the high-seventh grades were advanced on probation at Springfield and Decatur at the close of the first semester of 1918-19. All these pupils would have failed in the ordinary course of events. As a result of the work done during the proba-

tionary period, however, something over three-quarters of them maintained themselves in the grade to which they had been provisionally advanced. By this means the promotion rate for these two cities was raised to about 95 per cent.

During the second semester of 1918-19—the semester at the beginning of which the probationary period had occurred—the superintendents of Decatur and Springfield obtained from their teachers opinions concerning this promotion scheme. Superintendent Allen of Springfield secured an unsigned vote of the teachers in which they indicated whether in their judgment the experiment ought to be continued another semester. The vote was almost unanimous for continuing it. Accordingly, the identical procedure which had taken place in January was repeated in June. This time 881 pupils who would ordinarily have failed were provisionally promoted. This was only about two-thirds as many as had been so promoted the semester before. . . .

The probationary period for these 881 pupils did not, of course, occur until the following September and October, that is until the fall of 1919. Again three-quarters of the children made good, and as there were fewer probationary pupils than before, the promotion rate was even higher than 95 per cent.

Again it was decided to continue the experiment; and in January, 1920, the list of pupils promoted on trial consisted of 984 names. This time the probationary period resulted in the permanent promotion of only 60 per cent of the pupils who were provisionally advanced. This drop in the rate was caused by the fact that during February and March an epidemic of measles, followed by whooping cough, was so severe as actually to close up some of the schools for about two weeks. This disturbance occurred during the probationary period. Some receiving teachers rightly felt that in many cases they had no foundation on which to base a recommendation for permanent promotion.

One would no doubt like to know to what extent the same pupils came up for probation one semester after another. If by this special process we are able to stimulate pupils so that they become acceptable as members of a higher grade, it is more than likely that by the time the next lists are made up they will again be found among the doubtful pupils. If such is the case, our promotion scheme will be continually addressed to much the same group of incompetent pupils, and the securing of their promotion will be a labor of Sisypheus.

It will be recalled that at the first probationary period 1,276 pupils were on trial. Only 172 of them came up for the same treatment at the close of the second semester. Of the same 1,276 pupils, only 59 were placed on probation on all three of the occasions when this probation plan was used. Curiously enough, by no means all of these 59—indeed only about half of them—were found to be mentally deficient. Of the 1,276 who were first placed on probation, only 76 came up for similar attention a year later—i.e., the third semester of our investigation. Or, to look at it in another way, of the original 1,276 probationers, 1,087 did not become probationers on either of the two subsequent occasions. This represent-

ed more than 85 per cent of the first probationary group. Similar statements could be made concerning the second group. . . .

One would also like to know the effect of this promotion scheme on scholarship. A drive of this sort might be expected, like most concerted efforts, to produce large results in the intended direction. The results, however, may be accompanied by compensating disadvantages. Comparing the scholarship of pupils during the probationary period with their scholarship at the beginning of the probation, we found that 74 per cent of the pupils who consummated their promotion to the higher grade gained in scholarship; that 24 per cent of them neither gained nor lost; and that only the remaining 2 per cent lost ground. It would be natural to suppose, on the other hand, that pupils who failed to secure promotion despite the efforts during the probationary period would show a loss in scholarship. A stationary condition, however, was the prevailing one for these pupils. The records stood at 9 per cent gained, 7 per cent lost, and 84 per cent unchanged. Of the entire 3,141 probationary cases, 56 per cent showed improvement in scholarship, 41 per cent showed no change, and 3 per cent showed a loss.

Attention may be directed, too, to a somewhat similar experiment conducted by Otto and Melby and reported in the April, 1935, issue of the *Elementary School Journal* in an article entitled "An Attempt To Evaluate the Threat of Failure as a Factor in Achievement." The purpose of this study, in the words of the authors, was "to discover whether pupils threatened with non-promotion throughout the semester if they did not attain desirable achievement levels would make greater, less, or the same academic progress, as measured by standardized achievement tests, as did pupils who were told at the beginning of the semester that they would all be in the next higher grade in the following semester." The study was conducted in four school systems in northern Illinois and involved 352 pupils and 18 classroom teachers.

Otto and Melby summarize the results of their investigation as follows:

This investigation represents a preliminary effort to evaluate the effect of the threat of failure as a factor in the achievement of children. Within the limited range of this study it seems fair to conclude that children who are told at the beginning of the semester that all will be in the following grade the next term do as well on a comprehensive achievement test as children who throughout the semester are reminded that they must do good work or suffer non-promotion. This generalization applies about equally well to the groups in Grade II A as to the groups in Grade V A. In general, the statements of experimental-group

teachers are to the effect that the elimination of the threat of failure did not affect materially, either favorably or unfavorably, the quality of work, the attitudes, or the application of the pupils. These opinions of teachers are supported by the test results. Consequently, if the line of research represented here can be extended and expanded, there may be hope that within a short time the elementary school can be liberated from the undesirable aspects of non-promotion.

It should be clear to any reader that the study reported herein is only a preliminary step and that the experiment has many limitations. There are numerous questions raised by a project of this kind. What, for example, will be the ultimate effect on the attitudes of children toward success and failure if the policy of 100 per cent promotion is followed throughout a child's elementary-school career? Will six years in the absence of the threat of failure result in a total educational growth by the end of Grade VI as great as the growth attained under the constant pressure of the threat of failure? What differences will there be in the mental health, personality development, and social adjustment of children? How will children who have been permitted to go on regularly from grade to grade in spite of low attainment fit into the academic activities of typical achievers in the intermediate grades? Do teachers now have, or can they be taught, motivating devices other than the threat of failure which will cause each child to achieve to capacity? Is the threat of failure more useful and valuable in higher than in lower grades? What is the relation between promotion policies and report cards? These and many other questions must be investigated more fully before the policy of non-promotion can be generally eliminated in public-school practice.

AN APPRAISAL OF THE EFFECTS OF THE DEPRESSION ON THE PUBLIC SCHOOLS

The International City Managers' Association has published a monograph entitled *What the Depression Has Done to Cities*, in which an attempt is made to appraise the effect of the depression on municipal activities. Chapters are devoted to each of the following aspects of municipal life: finance, personnel, city planning, public welfare, parks and recreation, public health, housing, police service, public works, fire service, utilities, public schools, and public libraries. The following paragraphs are quoted from the chapter on public schools prepared by Professor Nelson B. Henry, of the University of Chicago.

The effect of the depression upon the public schools of the country is reflected in a general way in the statement that during the last three or four years expenditures have been declining while the demand for schooling has been increasing. Total expenditures for the public-school systems of the United States this year

are estimated at \$563,000,000 less than in 1930 and current expenses at \$368,000,000 less, although the number of pupils in the schools has increased by approximately 1,000,000. It is significant also that the schools are now manned by 40,000 fewer teachers than in 1930. Budget reductions in certain states are reported at from 25 to 40 per cent within this period. In the rural areas, particularly, many schools have been kept open for shorter terms than the minimum required by law, and many others have been closed entirely. It is estimated that approximately 1,500,000 children of school age have been out of school for a significant portion of the past school year.

Numerous reports and statistical summaries presented during the last three years indicate that city school systems have been compelled to operate on significantly lower budgets than prevailed in 1930. The average reduction in current expenses since that time has been about 20 per cent. The estimated reduction in the number of city school teachers within this period is reported by the United States commissioner of education as 18,600 or 4.6 per cent of the number employed in 1931. These city school systems have at the same time reported increased enrolments of 250,000. One out of every four cities has shortened its school term, and half of them have been compelled to eliminate some important school service. That curtailment of expenditures has been continuous through this period is indicated by the fact that 677 cities reporting for the past school year disclosed current expense reductions for schools of 5 per cent as compared with the previous annual budget. The combined effect of reduced appropriations and increased enrolment is shown in a reduction of 22 per cent in the per capita cost for current expenses from 1932 to 1933.

Naturally the largest reductions in expenditure have been made in capital outlay. The average reduction in appropriations for this item as reported for 262 cities in December, 1933, is given as 80 per cent below the 1930 figure. In some cities such appropriations have been eliminated entirely, and school-building programs have been abandoned or curtailed in many others.

Reductions in teachers' salaries as reported by 363 cities for the past year averaged 13.7 per cent below the 1930 schedule. Salaries have been cut as much as 20 per cent in nearly one-fourth of these cities. In a few of these same cities the teacher's income has been further reduced by a shortening of the school term, the full reduction in salary amounting to 30 or 40 per cent in some instances. A recent survey of 197 city school systems indicates that the average reduction in salary for other employees of the school system has been about 10.8 per cent. When administrative officers are considered as a class, the salary reduction is reported as 16.5 per cent. The present level of teacher compensation, according to this survey, is approximately that which prevailed in 1921. From the point of view of personal sacrifice, the school employee's losses have been aggravated in many communities by the inability of the school authorities to pay salaries when due. . . .

From the point of view of educational opportunities to be enjoyed by the children, the retrenchments reported indicate considerable variability. It is

clear that in many school systems a definite effort has been made to keep the school program intact and to effect economies as largely as possible by means of salary reductions and smaller appropriations for material necessities. On the other hand, there is evidence that in many other cities the retrenchment programs precipitated by the depression have resulted in elimination or impairment of opportunities provided for school children. This is obviously the case wherever the school term has been shortened, as it has been since 1931 in 25 per cent of the cities. It is not without significance, moreover, that in the beginning of

REDUCTION IN CERTAIN TYPES OF SCHOOL
TRAINING IN CITY SCHOOL SYSTEMS
FROM 1931 TO 1933*

Schools or Classes Relating to—	Number of Cities Reporting	Percentage of Cities Reducing or Eliminating This Work
Physically handicapped children.....	193	9.9
Homemaking.....	654	12.8
Industrial arts.....	630	13.0
Physical education.....	696	15.6
Mentally handicapped children.....	321	15.6
Art.....	632	16.2
Music.....	722	19.2
Kindergartens.....	404	19.8
Playgrounds and recreation...	502	20.3
Continuation work.....	181	32.1
Americanization.....	247	34.5
Summer schools.....	240	41.3
Night schools and adult classes	266	42.5

*Data from *Research Bulletin of the National Education Association*, Vol. XI, No. 4 (November, 1933), p. 109.

the school year just closing, [in] 12.5 per cent of a sampling of 363 cities, school superintendents expected a shorter school term than during the preceding year.

In addition to the general effect of a shorter school term, losses in educational opportunity have occurred in relation to many types of special training for pupils in general and for certain types of pupils requiring special kinds of instruction. The [accompanying] data taken from a report prepared after the schools opened last year indicate the extent and degree of reduction in school opportunities of specialized types.

According to data presented in the table, reductions in special opportunities for physically and mentally handicapped children have occurred in a relatively small number of schools, while opportunities for adults, aliens, summer-school students, and continuation-school pupils have been affected by economy measures in more than 30 per cent of the cities reporting. With the exception of the

reduction of playground and recreation programs in one-fifth of the cities, the other phases of the school program affected are those which are generally provided for during the regular school day and under the direction of the regular teaching staff.

As a whole the list indicates that retrenchments have been attempted quite generally in relation to those subjects of the curriculum and those types of school training which are intended to broaden and enrich the school program.

The effects of the depression on the schools have not been wholly bad. Professor Henry points out that it is already apparent that the schools have an opportunity to profit in certain respects from the experiences forced on them by the depression.

One of the major forms of economy practiced during this period is that of providing instruction in classes of larger size. Two important advantages to the pupils will probably ensue. In the first place, the pupils will of necessity do their work in larger measure independently, the advantage of which is obvious. In the second place, weaker teachers will fall by the wayside under the more exacting demands of larger numbers of more active students, and their places will be taken by more competent instructors. The financial significance of this change is likewise impressive when it is noted that it is in the secondary school that this change is most marked. Moreover, all of the increase in public-school enrollment in the past five years is accounted for by increased attendance in the secondary schools. Rapidly declining opportunities for employment presage further increases in high-school attendance and are exerting a growing pressure upon city school systems to extend the secondary-school program to the junior-college level.

The challenge to the schools is to devise plans for better training for the youth of the cities and to provide such training on a less expensive basis than has heretofore prevailed in the secondary schools. The experimental work now going on in large-class instruction and in simplification of the program of studies gives promise of an extension of educational opportunities for the youth of our cities on a scale that could not likely be realized in terms of traditional practices in the secondary schools.

Other advantages which have accrued to the schools may be listed as follows: the public has become better acquainted with its schools; better methods of conducting the business affairs of school systems are being adopted; and school administration is coming to be more definitely regarded as a technical type of public service.

HERE AND THERE AMONG THE SCHOOLS

The course of study in English of the Baltimore County public schools.—Under the general supervision of Professor R. L. Lyman, of the University of Chicago, the supervisors and teachers of Balti-

more County, Maryland, have prepared a course of study in English for all the grades of the elementary and junior high school. This course of study is one of the most elaborate and seemingly one of the most excellent we have ever seen. The course of study is organized on the general principle that work in English should be oriented around "functional centers of communication." The following paragraph quoted from the introduction reveals the point of view of those responsible for the organization of the course of study.

This course of study in English has been written with the idea of embodying in it the improvements in the teaching of English which are being made generally throughout the school systems of the country. Use has been made directly and indirectly of the idea of functional centers of communication which are defined as the major groups of expressional activities in which people ordinarily engage when they need to express their thoughts. Such functional centers as the following are now widely used in courses of study: group discussions, formal and informal talks, keeping personal memoranda, giving directions, writing business and social letters, carrying on conversations, writing reports, conducting meetings, entertaining with stories, poems, and the like, and writing original or creative materials. The functional centers give a focus on the whole field of English activities and are an aid to teachers in directing their instruction toward experiences which will be of value to the pupils in life outside the school.

The Manitowoc, Wisconsin, social-studies guides.—Superintendent Hugh S. Bonar, of the Manitowoc public schools, with the co-operation of his teaching staff, has prepared guides for the social studies in the first three grades. "The Home" is the theme around which materials are organized for Grade I. Activity in Grade I is oriented around thirteen teaching units, some required and others optional. The required units are as follows: "The Family," "The House," "Health in the Home," "Plays and Games in the Home," "The Library in the Home," "Food in the Home." Several weeks have been left open for teachers to experiment with the following optional units: "Pets," "Domestic Animals and Their Uses to Man," "Birds," "Mother's Day," "Toy Shop," "The Radio," and "Christmas." The work of Grade II is oriented around the theme "Our Community," the required teaching units being: "The Sources of Food in the Community," "Shelter in the Community," "Clothing in the Community," "Milk in the Community," "The Bank in the Community," "Manitowoc Then and Now." Teachers may experi-

ment with the following optional units: "How Our Fathers Help the Community," "The Circus," "Handling the Mail," "Art Gallery," "The Park." The guide for the work of Grade III has not yet been completed, but in that grade attention will be centered in the interrelations of the community with the greater community or the world outside. The work of each unit is described in great detail.

The course of study in arithmetic in Evanston, Illinois, District 76.—Superintendent David E. Walker, District 76, Evanston, Illinois, with the co-operation of Professor Henry J. Otto, of Northwestern University, and the teaching staff of the schools, has prepared an elaborate course of study in arithmetic for the eight grades in the elementary school. In order to assemble and interpret basic types of data which would serve as guides in the final preparation of the course of study, the teachers of the district were organized into committees under Professor Otto's general supervision. Extensive studies were made of such matters as the following: the mental and arithmetical abilities of children in Grades I–VIII, inclusive; the out-of-school number experiences of children in Grades I–III; the extent and the character of children's number experiences in subjects and activities other than those of the arithmetic period; difficulties in problem-solving and suggestive remedial measures; and methods and materials for the enrichment of the arithmetic curriculum for superior pupils. The results of these investigations have been embodied in a course of study filling four large volumes.

A COMPREHENSIVE SURVEY OF THE SCHOOLS OF NEW YORK STATE

The Board of Regents of the University of the State of New York are undertaking a survey of the state school system which promises to be more searching and detailed than any survey of its kind ever made. The survey will be financed by a grant of \$500,000 from the General Education Board and will be conducted under the supervision of Owen D. Young, a member of the Board of Regents. The following statement, quoted from the *New York Sun*, indicates the lines along which inquiry will be directed.

1. The financial problems of the system, including the examination of the present school-district organization.

2. Elementary education, with a view to revaluation of the curriculum and of the auxiliary services, including those for handicapped children, provided through the elementary schools.

3. All types of education on the secondary level, whether general or vocational or designed for special groups of students, whether furnished by schools or other agencies, with a view to evaluating the appropriateness and adequacy of these provisions.

4. The demands and provisions for adult education and higher education at public expense.

5. The selection, training, quality, and standards of compensation of the teaching personnel, with a view to determining the future rules of the teacher-training institutions.

6. Federal aid to reveal the influence of existing federal subsidies and regulations on the range and character of special types of education and to determine the policy which the state should follow with respect to seeking or accepting federal appropriations.

The State Education Department, with a view to determining the effectiveness of its organization and the desirable scope of its functions.

Revision of the education law.

A CODE OF ETHICS FOR ELEMENTARY-SCHOOL PRINCIPALS

The Elementary Principals Association of California has formulated the following code of ethics, which was published in the *Sierra Educational News*.

Purpose.—This code is set forth in order that the elementary-school principals of California may recognize more clearly and carry out more effectively their professional responsibilities.

1. *Obligation to the teaching profession.*—As a member of the teaching profession at large, the elementary-school principal is obliged to—

a) Recognize that the first duty of organized society is to its children.

b) Acknowledge that a system of public education, open to all of the children of all of the people, is necessary for the maintenance and preservation of our democratic, political, and social institutions.

c) Possess an attitude of honor and respect for the profession of teaching and maintain allegiance to its ideals and aims.

d) Subscribe faithfully to the primary purpose of teaching, namely, service to society.

e) Recognize the obligation of all members of the profession to maintain high standards of personal character.

2. *Obligation to the status of the elementary-school principalship.*—In advancing the status of the elementary-school principalship, it is the obligation of the elementary-school principal to—

a) Maintain a profound belief in the importance of the elementary-school principalship as a position of leadership worthy of the highest sense of personal and professional responsibilities.

b) Promote by every means appropriate professional standards of certification, preparation, and service, and a compensation adequate to obtain and retain the highest type of individual to so serve society.

c) Improve his techniques and broaden his vision of the purposes and services of the elementary school.

d) Identify himself as a progressive student of education, subscribing to the ideal of continuous professional growth.

e) Maintain loyal membership and co-operation in the activities of local, state, and national professional organizations as obligations of first magnitude.

3. *Obligations to the child and to the community.*—It is the supreme obligation of the elementary-school principal to—

a) Advance the child to the highest possible level of individual and social development.

b) Make the school serve the needs of the children and of the community.

c) Recognize the social contribution of the elementary school and its particular function in the entire school system of public education.

d) Administer and supervise the school both effectively and efficiently.

e) Build in the community an understanding of, and a confidence in, the public school and impart to the community a sound philosophy of public education through friendly, intelligent, and co-operative relations with parents and patrons.

f) Deal justly and impartially with children, parents, and patrons of the school.

g) Hold inviolate all confidential information regarding pupils and parents.

h) Actively participate in community life, to the end that "the good life" may be more nearly approached for an increasingly larger number of people.

i) Exercise full rights as a citizen and at the same time keep the school free from religious, political, or personal propaganda.

j) Work actively for economic and social conditions in the community that will permit the school to render its best possible service.

4. *Obligations to the administrative authority and co-workers.*—It is the duty of the elementary-school principal to maintain proper professional relationships with delegated authority and co-workers by—

a) Carrying out and developing the policies of the school system. (When a policy has been adopted, it should be loyally supported.)

b) Following the policies and procedures set down by duly constituted authority recognizing the right of superiors to leadership, and the principal's right to self-expression.

c) Holding that constructive criticism to delegated authority of incompetence and unprofessionalism is an ethical obligation demanded alike by professional authority and child welfare.

- d) Transmitting all official business through the proper channels.
- e) Looking upon supervision in its highest sense; the effective and efficient improvement of all of the services rendered by the schools.
- f) [Helping] teachers to develop and maintain a high level of self-direction within their professional teaching group.
- g) Maintaining a sympathetic and understanding attitude for the points of view held by teachers, supervisors, and other members of the professional staff.
- h) Dealing with other staff members on an impartial, just, and professional basis.
- i) Scrupulously guarding all confidential and official information.

A GUIDE TO THE LITERATURE OF ADULT EDUCATION

All who are interested in the literature of adult education will be indebted to Professor William M. Proctor, of Stanford University, for the publication of a pamphlet entitled *Annotated Bibliography on Adult Education*. This extensive bibliography is an outgrowth of Professor Proctor's work with graduate students in adult education during the past five years. Although the bibliography is not complete and exhaustive, it is "a fairly satisfactory sampling of the most important phases of the field." The bibliography is organized under the following seven major divisions: "History of Adult Education"; "Philosophy, Aims, and Objectives"; "Administration of Adult Education"; "American Agencies for Promotion of Adult Education"; "Foreign Countries and Adult Education"; "Miscellaneous References"; and "Alphabetical List of Authors." Under each division items are arranged under the following classifications: books and pamphlets, periodical literature, and editorials and news items.

ANNOUNCEMENT OF TWO NEW PERIODICALS

Readers of the *Elementary School Journal* will be interested in two periodicals the first issues of which appeared in October. The first of these is the *Educational Scene*, with the subtitle "A Journal of the Modern Renaissance." The purpose and the policy of the *Educational Scene* are described as follows by the board of editors.

The *Educational Scene* is "a journal of the modern renaissance." The Renaissance was a period of transition from the medieval to the modern. Today many frontier thinkers believe that they sense another great transition from that-which-was to that-which-is-to-be. Truly, our social order has been far from

static since the Renaissance, but periods of major change comparable to that period or to our own there surely have not been.

If we are to weather the stress and strain of our own renaissance without violence being done the cause of social progress and social justice, every effort possible must be made to view calmly and intelligently the changes manifestly going on about us.

We believe that no one knows the path ahead. It must be pioneered. Extensive trial and error directed by human sensitiveness and intelligence is the way of social progress. It is our function as editors to give heed to, and to encourage and interpret, the varied attempts being made to hew the way that generations shall follow. Naturally, our function pertains primarily to the interaction of these social forces and the forces of education.

We believe that true democracy in the American sense, and in the best American tradition, calls for a free, full opportunity for discussion and the clash of opinion. The pages of the *Educational Scene* will be open equally to all—liberal and conservative, radical and reactionary, malcontent and vested interest. We shall foster absolute freedom of issues and freedom of speech. Our only stipulation is that all messages must be expressed with good taste, good judgment, and sincerity.

The *Educational Scene* is published in Hollywood, California. The subscription price is two dollars a year.

The purpose of the second of these new periodicals, the *Journal of Social Philosophy*, is described by the editorial board as follows:

The *Journal of Social Philosophy: A Quarterly devoted to a philosophic synthesis of the social sciences* makes its appearance at this time in response to a need for critical analysis and integration experienced by an ever-growing number of scholars in the social disciplines.

This quest for synthesis in the domain of human phenomena is the inevitable reaction to a peculiar one-sidedness which caused philosophers to forsake interest in the social sciences, and which similarly brought it about that social scientists became estranged from everything faintly reminiscent of philosophy. The result of this mutual estrangement has been to rob philosophy of its significant content and to impede social science in its structural development. More and more sociological scholars now realize that this isolation has not been splendid for the progress of social interpretation; that numerical correlations and descriptive classifications taken by themselves are no better than the vaguest metaphysical lucubrations so far as a rational understanding of human phenomena is concerned. They are increasingly beginning to feel that hypotheses of integration and generalization are essential in order to fructify with a genuinely scientific meaning the welter of unrelated facts which now lie sterile in so many monographs.

Such a synthesis requires also the abrogation of the artificial and already antiquated line which divides the various social sciences into separate compartments. Students are discovering that what distinguishes each discipline in this area from every other, say economics from politics, is not a separate subject matter, comparable to a territory on a map, so much as a focus of interest and mode of approach.

The *Journal of Social Philosophy* constitutes itself a clearing-house where ideas emanating from all the various social sciences can be made to meet and mingle in fruitful communication so as to iron out their discrepancies and arrive at some general working agreement as to common assumptions and explanations; an objective forum for the discussion by competent scholars of the problems which arise out of the overlapping of their special interests.

The following persons compose the journal's editorial board: Robert M. MacIver, Lieber professor of sociology and political philosophy, Columbia University; Carl L. Becker, professor of history, Cornell University; John Dickinson, professor of law, University of Pennsylvania, and assistant attorney-general of the United States; Paul Klapper, dean of the School of Education, College of the City of New York; Jacob Viner, professor of economics, University of Chicago; and Moses J. Aronson, instructor in philosophy, College of the City of New York. The subscription price is three dollars a year. All communications should be directed to Moses J. Aronson, managing editor, College of the City of New York, Convent Avenue and 139th Street, New York City.

WHO'S WHO IN THIS ISSUE

HAROLD G. CAMPBELL, superintendent of schools of the city of New York. EDGAR M. FINCK, supervising principal of the Dover Township Public Schools, Toms River, New Jersey. CHARLES REAVIS SHANNER, instructor in health at the Hammond High School, Hammond, Indiana. WILDA ROSEBROOK, associate professor, Bureau of Adult and Special Education at Ohio State University. CARL T. WISE, principal of the Lincoln Junior High School at Duluth, Minnesota. WALTER R. GOETSCH, research assistant at the University of Iowa. WILLIAM S. GRAY, professor of education at the University of Chicago.

EDUCATION FOR LEISURE TIME

HAROLD G. CAMPBELL
Public Schools, New York City

Two appalling facts are staring us in the face today: One is the large number of children who are killed or injured annually while playing in city streets, and the other is the number of young men who are found every year among the ranks of the criminals.

You may read every report that has ever been written on the subject of motor-vehicle casualties, study every survey that has ever been made of juvenile delinquency; and, when you get through, the probabilities are that you will come to one simple conclusion: There is no place for the children to play except in the streets and no place for them to gather by themselves except in the movies or in a cheap candy store where the five-cent bagatelle game is the chief form of recreation.

You all know the story about the woman who was such a good housekeeper that she swept her children out into the street and refused to let them come in again because they might scratch the hardwood floors or get the rugs dirty. Well, that is what America has done. It has become so highly civilized, so thoroughly motorized, and so much devoted to the interests and pleasures of adult life that its children have been swept out into the streets.

You may find it difficult to believe but it is a fact that, in one of the city of New York school districts having a population of nearly a quarter of a million people, play space, except for one small park, is practically unknown. The chief concern of the local superintendent in charge of the district is for the health and the safety of his children. In other words, he cannot begin to give them the advantages of an education until he has first assured himself of their health and safety. In yet another district the supervisors find that their most baffling and ever-present problem is the underprivileged children—underprivileged with respect to oppor-

tunity for healthful recreation and chances for contact with life in its most enjoyable aspects.

Education for leisure, in my opinion, means educating the community to the necessity for providing adequate recreational facilities in the form of parks, playgrounds, athletic fields, and clubs for young Americans; making the people realize that, if they want to save their children from death or permanent injury under the wheels of a truck or from the influences of commercialized and questionable forms of entertainment, they have to get busy and give the children a decent place to play and a wholesome place to go during their free hours.

Far better that we spend public money in this way than that we spend it for state hospitals or houses of correction. Every judge, every district attorney, and every police officer that I have ever talked to has emphasized the same thing: that the amount of work they can do in the field of crime prevention is almost negligible compared to what can be done by one well-conducted community center or one baseball diamond in a public park.

We in the state of New York are fortunate in having at the head of our park system one of the most enlightened and efficient men that has ever held public office, Robert Moses. Whatever he sets out to do, he gets done, and the result is that the state has a park system that is a model for the entire country. I have often wondered as I have visited Jones Beach State Park, with its matchless facilities for every conceivable form of recreation, how many thousands of lives it has saved and how many thousands of young men it has attracted away from the undesirable places to which they might have gone had Jones Beach State Park not been in existence. I mention this particular park because it took a long campaign of public education to make it possible. The owners of the land hesitated at first to let the state have it. The question of the advisability of spending so much money on a state park was raised. In other words, the public in the beginning did not seem to understand that here would be the means of saving their children from injury in the streets or from delinquency growing out of the lack of a place to spend a holiday.

Often an old maxim states more tersely than we moderns can

the essence and the solution of a seemingly complicated problem. "Satan finds some mischief still for idle hands to do," it was once said, and that is about as complete a statement as you can get of the problem of juvenile delinquency and the way to its solution. Provide something for idle hands to do, and Satan can make no mischief. Provide places for children to play, centers where they may meet in the afternoon and evening and have an opportunity to do the things they like to do, and few, if any, will pay heed to the devil. All this applies to grown-up children as well. You never heard of a man getting into trouble playing tennis or attending a gymnasium class. The difficulty is that there are not enough tennis courts or enough gymnasium classes.

Except to a limited extent, education for leisure does not consist in teaching either children or their elders how to enjoy themselves; it consists in teaching the community that it simply must provide more recreational facilities if the two ugly facts of automobile deaths and youthful criminals are to be met. Most people have a pretty good idea of what they would like to do during their free time if only the chance were offered them. Children have little trouble in learning to play games, and the public schools are teaching them everything from handball to golf. Adults have ample sources of information on the manner in which leisure time may be spent. By far and away the largest part of the problem is to provide children with the place to play and to provide adults with the opportunity to enjoy themselves at minimum cost.

RELATION OF ABILITY IN READING TO SUCCESS IN OTHER SUBJECTS

EDGAR M. FINCK

Dover Township Public Schools, Toms River, New Jersey

American schools are reading schools. If a pupil reads slowly and comprehends poorly, he is under a serious handicap in his study of history, geography, science, and other subjects which involve reading to any great degree. Hence, if this reading handicap is removed or appreciably decreased, the work of the pupil in subjects which involve reading should improve. For a poor reader who is doing poor work in history or geography, for instance, the cure may be not to devote more time and effort to his history or geography but to work for improvement in his reading, with the expectation that improvement in other subjects will follow as a natural consequence. This hypothesis was the basis for the experiment reported in this article.

PROCEDURE OF THE EXPERIMENT

The general plan.—The plan was to study pairs of pupils. Both members of any one pair came from the same classroom, and both were as nearly alike as possible in age, mental ability, and scholastic achievement. Twenty-two pairs were selected, eleven for each of two teachers. The teachers were supplied and paid by the Emergency Relief Administration; without this help the experiment would have been impossible. The treatment of both pupils in each pair was the same, in the classroom and everywhere else in the school, except that each experimental pupil was daily excused to spend a half-hour with one of the special teachers, who worked with him on his reading and vocabulary only. Thus, so far as is possible in a public school, the conditions were identical for both pupils in any pair with the exception of the special reading instruction. Any difference in the achievement of the pupils of a given pair at the end of the experiment may fairly be considered a result of the special instruction. From the outset every effort was made to be strictly scientific, and

the greatest care was taken to bury prejudice and to make the experiment as objective as possible.

The teachers.—The teachers were two women of middle age, each of whom was a mother of boys. Neither of the teachers had had any training for this type of work, neither had taught as a classroom teacher in a graded school, and neither had done any teaching for twenty years. Teacher A had taught for five years in a one-room school immediately after leaving high school, and Teacher B had had one year's training beyond high school in a school of music and had served as a music teacher for one year. Teacher A took a deep personal interest in each of her pupils; Teacher B worked rather for the pay check. The pupils of Teacher A made almost three times as much progress as those of Teacher B.

Although the teachers reported for duty on December 3, 1934, work with the pupils did not start until January 3. The intervening period was spent in acquainting the teachers with the school and the experiment and in preparing them for their specific jobs. The teachers visited every classroom in the building, observing all subjects and all pupils, especially those pupils with whom they were to work. Whenever possible, the writer accompanied the teachers. The teachers read several recent textbooks on the teaching of reading. The writer held conferences with the teachers every day, sometimes two or three times a day, on what had been seen and read. Out of these conferences there developed a definite program which each teacher was to follow.

The instruction.—Each teacher was assigned a small room where she met her pupils individually behind a closed door. The writer believes that privacy is absolutely essential in remedial work of this sort. If, when in ill health, a person consulted his physician in the presence of thirty or forty, or even five or six, of his acquaintances, the physician would probably not learn all the facts that he needed. So with a pupil and a teacher. Behind a closed door the pupil will disclose troubles and weaknesses to a sympathetic teacher which he would never divulge in the presence of his classmates.

Briefly, the teachers tried first of all to gain the confidence of the pupil, to ascertain his interests, to find out where his weakness lay, and to start just as far down in the scale of reading skills as his par-

ticular difficulties required. Glasses were secured for three children who needed them. Phonics were used to a considerable extent, special stress being laid on phonograms. Anything that appealed to the interests of the pupil was used as reading material, even *Boys' Life* and the Boy Scout *Handbook for Boys*. Pertinent items from newspapers and catalogues were frequently used. This practice led the children to do a large amount of reading and workbook work at home. Always attempt was made to keep the reading on such a level that the child could succeed with reasonable effort. In the early stages the Gray Standardized Oral Reading Check Tests and the Detroit Word Recognition Test were used. Two parents at first objected because the pupils were taken from the classroom each day, but the progress of the pupils soon overcame these objections.

Of the twenty-two pupils, all but two co-operated well. All were frank in admitting, "I know I can't read," and were pleased that an opportunity was offered to do something about it. In fact, the difficulties experienced were not with the experimental pupils but with the control pupils. The control pupils resented the fact that they were not being helped. A mistake was made in three instances of having experimental and control pupils in the same families. In two of these families the father quizzed the experimental child each evening on the instruction in reading, constituted himself a teacher, and used the material with the control child. This situation was good for the control child but not so good for the experiment. It was a mistake to allow any control child to know his status in the experiment, for a spirit of rivalry arose which led the control pupils to put forth much more effort than they would otherwise have exerted.

The pupils.—The criteria for the selection of the pupils were age, scores on the Otis Self-administering Tests of Mental Ability, Form D, and scores on the New Stanford Achievement Test, Form X. The data in Table I show how well the pupils were matched. Although twenty-two pairs were originally selected, one pair left school during the experiment. Eight pupils within the groups were close relatives. Three pupils in the experimental group had sisters or brothers in the control group, and one control pupil and one experimental pupil were cousins. Seventeen experimental pupils were boys, and four were girls. Ten control pupils were boys; eleven were girls.

The ages varied from nine years to sixteen years. The groups were approximately equal in age, the experimental pupils averaging eleven years and ten months; the control pupils, eleven years and eleven months. All ages are as of October, 1934.

TABLE I

GRADE, AGE, INTELLIGENCE QUOTIENT, AND SCORE ON NEW STANFORD ACHIEVEMENT TEST OF PUPILS IN EXPERIMENTAL AND CONTROL GROUPS

PUPIL PAIR	GRADE	AGE IN YEARS AND MONTHS		INTELLIGENCE QUOTIENT		SCORE ON STANFORD ACHIEVEMENT TEST	
		Experimental Group	Control Group	Experimental Group	Control Group	Experimental Group	Control Group
1.....	IV	9-2	9-3	100	99	39	38
2.....	IV	9-11	10-7	86	82	44	48
3.....	V	11-3	11-3	93	94	39	48
4.....	V	10-10	10-1	89	97	54	53
5.....	V	10-0	11-2	94	94	47	48
6.....	VI	11-7	12-1	92	92	69	61
7.....	VI	12-10	13-2	75	78	62	62
8.....	VII	13-9	15-0	82	71	70	76
9.....	VII	14-8	13-11	90	90	78	81
10.....	VIII	13-2	15-6	89	88	80	86
11.....	IV	9-10	10-4	79	81	35	36
12.....	IV	11-3	11-0	76	84	29	28
13.....	IV	9-0	9-10	90	82	41	42
14.....	V	9-6	9-7	105	101	59	53
15.....	V	11-6	11-0	86	85	52	40
16.....	V	14-7	11-9	64	78	49	48
17.....	VI	11-9	12-6	87	86	66	65
18.....	VI	12-10	13-3	81	82	71	75
19.....	VI	12-1	12-3	94	91	73	68
20.....	VII	13-0	13-7	92	92	77	74
21.....	VIII	16-0	14-7	74	84	78	73
Average.....		11-10	11-11	86.5	87.2	57.7	57.3

The intelligence quotients, obtained from the Otis Self-administering Tests of Mental Ability given in October, 1934, ranged from 64 to 105. Three intelligence quotients were 100 or above, and eight were below 80. The average intelligence quotients of the experimental and the control groups were approximately equal, 86.5 and 87.2, respectively. In four pairs the intelligence quotient of the experimental pupil was exactly the same as that of the control pupil,

TABLE II—Continued

Pupil	Para- graph Mean- ing	Word Mean- ing	Dic- ta- tion	Lang- uage Usage	Liter- ature	His- tory and Civics	Geog- raphy	Physi- ology and Hy- giene	Arith- metic Rea- son- ing	Arith- metic Com- puta- tion	Aver- age Gain
Pair 16:											
Experimental...	20	- 4	2	7	-10	11	32	- 9	12	17	7.8
Control.....	- 4	0	- 3	4	54	25	7	3	18	17	12.1
Pair 17:											
Experimental...	11	12	3	21	14	8	16	-10	0	5	8.0
Control.....	- 1	7	9	16	13	- 5	16	7	1	- 2	6.1
Pair 18:											
Experimental...	27	4	1	0	- 3	-20	19	- 3	9	6	4.0
Control.....	12	1	0	-10	- 9	1	8	2	16	17	3.8
Pair 19:											
Experimental...	13	3	7	28	15	- 7	5	6	10	0	8.0
Control.....	- 2	- 1	5	14	-20	13	23	-19	6	8	2.7
Pair 20:											
Experimental...	28	2	5	1	47	12	16	- 2	3	2	11.4
Control.....	4	1	6	33	2	4	5	15	- 7	2	6.5
Pair 21:											
Experimental...	15	8	0	36	21	13	22	16	19	-12	13.8
Control.....	- 1	19	4	7	-10	21	5	0	8	2	5.5
Average:											
Experimental	16.6	4.7	7.8	17.0	23.7	7.8	13.8	8.0	11.9	9.1	11.9
Control	7.9	3.0	0.2	6.2	8.9	14.2	8.0	2.8	6.4	6.5	6.4

lowest intelligence quotient (64), made an average gain of 7.8 points, while the experimental pupil in Pair 14, who had the highest intelligence quotient (105) and who was in the same grade, made an average gain of 5.6.

If all the twenty-one pairs of pupils had taken all ten parts of the test, there would have been 210 comparisons of scores. Since one pair missed two parts, there were 208 comparisons. In eleven of these comparisons the experimental and the control pupils made the same gains. In 132 comparisons (63 per cent of all) the experimental pupils made greater gains than the control pupils, and in 65 comparisons (31 per cent of all) the control pupils made greater gains than the experimental pupils.

The greatest gains made by the experimental pupils were in literature, language usage, paragraph meaning, and geography. The average gains made by the experimental pupils on the various parts of the test exceeded the average gains of the control pupils in every

subject except history. A check showed that the loss in history resulted largely from the loss of the sixth-grade experimental pupils. It should be noted that the history section of this test deals with American history only and hence is valueless as a measure of progress in Grade VI of a New Jersey school, where the history taught concerns Europe and Asia.

The average gain of the experimental pupils on the whole test (11.9) is 1.86 times that of the control pupils (6.4).

These gains are not due primarily to the influence on the average exerted by high scores in reading, for, if from the total gains are deducted the gains in paragraph meaning and word meaning, the ratio of the gains of the experimental pupils and the control pupils remains practically the same. The average gain of the experimental pupils (9.8) is then 1.85 times the average gain of the control group (5.3).

The smallest gain made by the experimental pupils was in word meaning. This result is inexplicable.

Conclusions.—Working against the success of this experiment were the facts that the teachers were inexperienced, that attendance was irregular, that the control pupils knew their status, and that four control pupils were close relatives of experimental pupils. In spite of these drawbacks, the results prove, for these twenty-one experimental pupils, that improvement in ability to read is accompanied by improved achievement in those subjects which involve a great deal of reading.

QUESTIONS RAISED BY RESULTS

The poor showing made by all the pupils in the word-meaning test causes one to wonder whether in Grades IV, V, and VI the acquisition of a vocabulary should not become a major objective. Might not some of the time now devoted to penmanship and spelling be much more profitably spent in word study?

Rather than segregating retarded pupils in "special" or "Binet" classes, would it not be more advantageous to many pupils to leave them in ordinary classrooms, where they could enjoy normal social contacts, and to attempt to improve their scholastic achievement by special instruction in reading?

REGULATIONS PERTAINING TO HEALTH, HYGIENE AND SAFETY IN CITY SCHOOL SYSTEMS

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The power of a city board of education to make regulations pertaining to health, hygiene, and safety in the schools under its control is derived from the legislature of the state. The legislature has the authority to enact laws for the control of the schools, but, when the legislature fails to enact laws for the control of specific functions of education, the local board of education is privileged to make rules or regulations for the control of the functions in question, provided that the enactments do not conflict with the general laws of the state. If such enactments are intended to further the welfare of the schools, the courts would hold that the board had acted within its rights. Acting on the principle of discretionary power, boards of education in city districts have enacted rules and regulations for the control of schools under their charge, many of which pertain to health, hygiene, and safety. Some of the enactments are peculiar to the school systems for which they were made.

In an analysis of state laws pertaining to the elementary curriculum passed from 1903 to 1932, Fenton¹ found a great number of laws on health, hygiene, and safety. For example, he found that all the states except one have laws which require the teaching of the nature of stimulants and narcotics and their effects on the human system. This requirement is the nearest approach to a national subject of instruction yet made.² Thirty-one states have laws concerning the teaching of physical education, twenty-nine

¹ Frederick Charles Fenton, "The Legal Basis for the Elementary School Curriculum," pp. 27-37. Unpublished Master's thesis, Department of Education, University of Chicago, 1932.

² Jesse Knowlton Flanders, *Legislative Control of the Elementary Curriculum*, p. 68. Teachers College Contributions to Education, No. 195. New York: Teachers College, Columbia University, 1925.

requiring this training and two permitting it, and twenty-three states have laws requiring the giving of physical examinations.¹ The physical examination includes medical inspection for contagious diseases, examination of pupils for defects of sight and hearing, and other forms of inspection and examinations carried out by physicians, nurses, or teachers. To conserve the life of pupils from fire hazards, twenty-three states² have made fire drills a part of the school program. For example, the law of Mississippi requires that teachers in school buildings of two or more stories must practice proper fire drills until all the children in the school are familiar with the methods of escape and must practice often enough thereafter to keep the children well drilled.³

The purpose of the study reported in this article was to make an analysis of the regulations pertaining to health, hygiene, and safety in city school systems; to compare these regulations in small, medium-sized, and large cities; and to determine who is responsible for the execution of the regulations. The findings of the study should prove valuable to persons specifically interested in health service, such as teachers of physical education, school physicians and nurses, superintendents and principals of schools, and the directors of local boards of health.

The data used in this study were secured from the published rules and regulations in city school systems. The copies of the rules and regulations were obtained in the library of the Department of Education of the University of Chicago. They were drawn at random from the library files until 130 copies had been analyzed for data bearing on the problem of the study. The cities in which the school systems are located constitute a satisfactory geographical sampling, being distributed over 35 states and one province in Canada. The populations of the cities range from 2,000 to 3,400,000. The cities were divided into three population groups: Group I, 42 cities with populations of 50,000 and over; Group II, 47 cities with populations of 15,000 to 50,000; Group III, 41 cities with populations of less than 15,000.

¹ Frederick Charles Fenton, *op. cit.*, pp. 31-32.

² *Ibid.*, p. 36.

³ *Mississippi Code of 1930*, chap. 278, art. 1, sec. 6356.

Great variation is found in the numbers and the kinds of rules and regulations pertaining to health, hygiene, and safety that have been passed. The fact that one city has many rules and another city has few rules cannot be construed to mean that the services are excellent in the one city and poor in the other. The laws of the one state may be general and those of the other specific, and regulations by boards of education may therefore be more necessary in the one city than in the other. Furthermore, the state board of health in the one state may have enacted more specific regulations than were enacted in the other state. State practices may leave much or little that requires the local school boards to make regulations pertaining to health, hygiene, and safety in order that the intent of the state law may be carried out. The variation in the numbers and the kinds of local regulations may indicate, therefore, only the degree to which local boards of education must provide for the services in question. Regulations may also vary because of local needs for school services pertaining to health, hygiene, and safety and because of variation in the division of responsibility for community health, hygiene, and safety between civil and school authorities.

A total of 1,467 regulations were found. Comparable regulations were combined, and a total of 59 different regulations were found to pertain to health, 31 to hygiene, and 46 to safety. These regulations were classified and arranged in three master tables. The data contained in the tables were broken up into units for analytical treatment and interpretation. The resulting findings constitute the basis of the following generalizations.

HEALTH REGULATIONS

Approximately half the regulations considered in the study deal with health. Of these, almost half (46 per cent) were found in school systems in the large cities, a little over a third (37 per cent) were found in the middle-sized cities, and the remaining regulations were found in the smaller cities. The data show that the size of the school system, as measured by the population of the city in which it is located, has an important bearing on the number of rules enacted by the school board for the control of health. Three hundred and forty-four regulations were found in the 42 large cities, or an average of 8.2 regulations in a city; 273 in the 47 cities in the

middle group, or an average of 5.8; and 130 in the 41 small cities, or an average of 3.2.

A total of 747 regulations were found to pertain to health, or an average of 5.7 per city. Some of these rules were found in many of the cities, while others were peculiar to a single school system. The frequency of mention of a given regulation by the cities of the three groups may be considered an indication of the general importance attached to the regulation by the officials responsible for its enactment. High frequency thus would signify a common recognition of the need for the regulation; low frequency, on the contrary, might indicate the beginning of an innovating practice in health administration or a mere failure of school officials to distinguish between the responsibilities of state and local control.

The regulations show that boards of education have evidently been impressed with the importance in the control of pupil health of maintaining proper classroom conditions, since 66.1 per cent of the boards have enacted general rules pertaining to heating and ventilation and 29.2 per cent have passed regulations regarding the temperature and ventilation at the opening of school each day. A few boards have made rules authorizing the dismissal of school when the proper temperature cannot be maintained, and a few have enactments requiring daily inspection of heating and ventilation. The regulations indicate that the boards of education in most of the cities understand the relation between good classroom conditions and the health of the pupils.

Most of the boards of education in the cities studied have enacted rules designed to protect pupils from exposure to contagious diseases. The enactments are by no means uniform, but the purposes are in general the same. Over half of the boards (58.5 per cent) do not permit pupils who have been exposed to a contagious disease to attend school; 50.8 per cent require pupils to present certificates of health after absence on account of illness or contagious disease; 24.6 per cent require vaccination certificates of pupils on first admission to school; and 17 per cent require health certificates of all teachers and school officers. The data show little difference between the cities in Groups I and II with respect to emphasis on the protective responsibility of the school for the health of the

pupils. The cities in Group III have fewer regulations of the types enumerated.

A large number of the rules pertaining to health are more or less peculiar either to individual school systems or to a small number of school systems. It is impossible to say how necessary these rules really are. Some of the provisions are no doubt covered by the regulations of state and local boards of health. Others may concern duties which many school boards consider the responsibilities of administrative officers for which special enactments are unnecessary. In a few cities regulations may have been adopted merely to give support to administrative officers. The analysis of the regulations indicates that boards of education take seriously their responsibility for the health of the school community and that they tend to enact the specific rules which conditions seem to require.

Responsibility for school health is widely distributed by the regulations of the cities studied, fourteen different functionaries being mentioned, including the board of education itself and its standing committee on health. The functionaries most frequently mentioned are the principal in 26 per cent of the rules, the school physician in 18 per cent, the teacher in 16 per cent, the school nurse in 11 per cent, and the janitor in 10 per cent. With the exception of the physician and the nurse, the other functionaries mentioned are charged with general administrative duties or acts which bear only indirectly on health. Direct responsibility for pupil health is placed by approximately half of the school boards (54.6 per cent) on the school physician or nurse. The cities in Group I lead in this respect, frequently mentioning specific duties to be performed by physicians and nurses. The cities in Groups II and III mention frequently the duties of school nurses but only infrequently the duties of school physicians. The data indicate that the schools in the large cities generally employ both school physicians and school nurses to protect the health of pupils, while the schools in the middle-sized and the small cities tend to rely almost solely on school nurses.

REGULATIONS ON HYGIENE

One-fourth, or 368, of all the regulations studied were found to pertain to school hygiene. The large cities have approximately one-

half of these regulations, the middle-sized cities one-third, and the small cities one-sixth. The distribution of rules among the three groups of cities indicates that, as in the case of health, the size of the city bears a close relation to the number of regulations enacted by the school boards for the maintenance of hygienic conditions in the schools. The large number of rules pertaining to hygiene in the large cities is probably accounted for by the employment of a greater number of officers with special duties, a practice which calls for the definition of duties in rules. In the smaller cities these special duties are probably performed by general administrative officers, whose responsibility for the specific duties pertaining to hygiene has not become embodied in official rules.

Nine of the ten regulations of highest frequency have special reference to the cleanliness of the building. The data assembled indicate, therefore, that boards of education consider it essential to enact regulations designed to insure the hygienic care of the school buildings under their charge. The boards of education in the large and the middle-sized cities enact more rules pertaining to the care of school buildings than do the boards in small cities. Furthermore, the boards of the large and of the middle-sized cities fix responsibility for the supervision of school hygiene on functionaries designated as "health officers." These officials are not mentioned in the regulations of the small cities. In general, it may be concluded that the more important standards of school hygiene are clearly understood by boards of education in most cities irrespective of size and that provisions are made for the maintenance of these standards.

Twenty-one rules pertaining to hygiene were found infrequently among the rules of the schools studied. The greatest frequency for any regulation in this group was nine and the lowest, one. The data indicate that most of these regulations were probably enacted to meet local needs.

A careful study of the thirty-one regulations pertaining to hygiene reveals indifference on the part of some boards of education to certain important phases of school hygiene. For example, only seven of the 130 cities have enacted regulations pertaining to the proper lighting of classrooms. Evidently, it is assumed by most of the boards that, if classrooms are provided with proper lighting

facilities, the teachers will accept the responsibility for the proper use of these facilities or that it is the duty of the executive officers to see that the facilities are properly used without specific enactments by the board of education.

The responsibility for administering the 368 regulations pertaining to hygiene in the 130 cities studied is distributed among 14 different functionaries. The school janitor is designated twice as frequently in these regulations as all the others combined. Evidently, the execution of a number of the regulations pertaining to school hygiene is regarded by many boards of education as a routine procedure involving only faithful, mechanical application. In a number of instances the regulations are too general to provide guidance, and proper execution of the function in question would depend largely on professional supervision.

SAFETY REGULATIONS

The boards of education in the 130 cities have enacted 352 regulations pertaining to safety. These 352 regulations constitute about a fourth of all the regulations pertaining to health, hygiene, and safety. The cities in Group I have enacted more regulations pertaining to safety than the cities in Group II, and the cities in Group II more than those in Group III. This finding further substantiates the earlier conclusion that the size of the city is closely related to the number of rules adopted by a school board for the control of health and hygiene.

More regulations pertaining to fire prevention and safety from fires than regulations pertaining to accidents have been enacted by school boards. Twenty-seven regulations pertain to fire safety and prevention, while only nineteen pertain to accident prevention. It is evident either that the boards of education consider the hazards of fire of greater danger to pupils than the chances of accident or that the safety problem has not been called to their attention with sufficient force and vigor.

Twenty-two of the forty-six different regulations pertaining to safety were enacted by not more than one board of education. The fact that many of these regulations had such low frequency of mention is probably accounted for by the recent introduction of safety instruction into schools.

The responsibility for carrying out safety regulations is placed on nine different functionaries as compared with fourteen in the case of both health and hygiene. The janitor and the principal are the chief functionaries mentioned in 292 of the 352 regulations. The supervision of the general enforcement of safety regulations is delegated to the superintendent of schools, the committee on safety, and the superintendent of buildings and grounds.

SUMMARY

In general, the analysis of the 1,467 regulations pertaining to health, hygiene, and safety shows that in the enactment of regulations the boards of education in 130 cities place health first, hygiene second, and safety third. The rules on health and hygiene most frequently enacted are largely protective in character, while those dealing with safety are chiefly preventive. Analysis of the rules of infrequent mention shows that the enactments have been made largely to meet specific needs of local school systems. Some of the regulations are extremely specific, but the majority are somewhat general.

The analysis further shows that boards of education distribute rather widely the responsibility for carrying out regulations pertaining to health, hygiene, and safety. The functionaries most frequently designated are (1) the janitor, (2) the principal, (3) the teacher, (4) the school physician, and (5) the school nurse. The superintendent of schools, the director of health, and committees of the boards are required to act as general supervising agents.

The investigation shows that many cities fail to specify in rules either the duties to be performed or the functionaries responsible for performing them in safeguarding the health, hygiene, and safety of the school children. The small school systems in Group III are either more negligent in these respects than those in Groups I and II, or they are not sentient of the needs for such regulations.

PREVENTING READING DEFICIENCY

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One of the most frequently discussed problems in the elementary school today is how to make the teaching of reading more effective than it now is. Research and surveys have shown that about 10 or 12 per cent of the children in the public schools are seriously retarded in reading.¹ Techniques for the diagnosis and treatment of reading deficiency have been devised. These techniques are helpful in most cases, but they do not solve the problem of prevention. The information now available is too inadequate to prevent entirely the necessity for remedial instruction in reading. Nevertheless, this information makes it possible to direct the reading program so that the amount of reading deficiency can be reduced.

The school recognizes the problem and is willing to assume the major responsibility for the prevention program. The persons most concerned with the successful carrying-out of the program are the administrator and the teachers of Grades I, II, and III. They need to accept certain facts as a working basis: (1) that the reading methods in use have failed to teach from 10 to 12 per cent of the children to read on a level in keeping with their intellectual abilities, (2) that no child should be expected to learn to read until he has a mental age of from six years and six months to seven years, and (3) that the ability to read should not be the only criterion governing promotion from either Grade I or Grade II. What are the implications of these facts?

REASONS FOR FAILURES PRODUCED BY CURRENT READING METHODS

One of the main reasons why the methods in use have failed with from 10 to 12 per cent of the children is that teachers are inclined to

¹ a) Marion Monroe, *Children Who Cannot Read*, p. 17. Chicago: University of Chicago Press, 1932.

b) Emmett Albert Betts, "A Physiological Approach to the Analysis of Reading Disabilities," *Educational Research Bulletin*, XIII (September 19, 1934), 135.

follow one method to the exclusion of all others. Each child is different from every other child, and every method or technique has to be revised to meet the particular needs of each child. Some children learn to read exceptionally well without any drill in phonics; some need intensive drill on phonics before they become independent readers; and still others need only a modified program in phonics. The same will be true of any technique that the teacher may use. The teacher who has many techniques at her disposal and can modify the techniques as individual needs arise will have a much smaller percentage of failures than the teacher who uses only one method.

Non-flexible grouping is also a factor contributing to failure. Too often children are placed in a group at the beginning of the year or semester by virtue of chance and tradition rather than on the basis of individual needs and capabilities, and they are left there throughout the year or semester. More often than not every child in the group is expected to read from the same book, at the same rate, and with the same degree of interest, regardless of his past experiences, present environment, intellectual ability, special abilities, and interest. Reading groups are desirable, but they should be flexible. In any one grade there should be four, five, or more reading groups. The groups may be organized on the basis of the pupils' common need for drill on a given thing, such as beginning sounds, phonics, comprehension in silent reading, reading for details, and reading for pleasure. A child should be changed from group to group as he progresses. In a room in which there are several grades, perhaps all eight grades, such a grouping is just as desirable as it is in a large school with but one grade to a room. The teacher of the one-room school can have every child reading for pleasure at his own level and with children of his own age, but for drill purposes it is quite possible that a sixth-, a seventh-, or an eighth-grade boy may be working with a second-, a third-, or a fourth-grade boy on beginning sounds, word study, reading for detail, or reading for content. Such an organization can be arranged to everybody's satisfaction if the teacher can discover the needs of each child and then work out a program which will insure success. This program must be flexible. The teacher and the administrator cannot determine in advance the length of time that a child should remain in any given group, but the teacher

should have complete freedom to determine the needs of her children, to place them in groups which will best serve their needs, and to regroup them from time to time as she sees fit.

A teacher should not be discouraged if she is not able to teach every child to learn to read in keeping with his ability. The amount of exact knowledge about how and why a person learns is not yet sufficient to enable us to devise reading techniques which will be the best for every child. The situation is further complicated by the physical, social, and emotional factors which are always playing on every pupil.

It is an accepted fact that a child with an uncorrected visual defect will probably be seriously retarded in reading. It is also true that one child with a slight eye defect may learn to read without any apparent difficulty, while another with the same degree of defect will not learn without a correction and special remedial measures. It has also been suggested that in the case of some children the physical development of the eye is not sufficiently mature before the age of seven or eight to insure the muscular co-ordination necessary for learning to read. The lack of physical maturity or integration in this connection has no relation to intellectual ability.

A few cases have been reported in which the physical findings indicated no major defect but two, three, or more minor defects. For example, the following minor defects were found in one case: a slight defect in vision, but not serious enough to warrant a correction; some loss of hearing, but not enough to interfere with ordinary conversation; slightly enlarged tonsils; and a mild speech defect. It would be difficult to state just which factor or factors may have been the cause of reading disability in this case, but the individual organism was not able, apparently, to meet the demands placed on it, and this failure was observable in the child's inability to learn to read.

A major physical defect may be so potent and so general in nature as to affect progress in learning to read although the defect has no direct relation with those parts of the organism that are apparently active in the reading process. In a case recently reported a boy of thirteen with good average intellectual ability was reading at a level far below his capacity. The physical examination revealed a glandular disturbance of an extremely serious nature. Other cases might be

cited in which the major physical defect was diabetes, malnutrition, or childhood type of tuberculosis.

A child may have sufficient physical and mental maturity to learn to read, but some emotional blocking hinders him. This emotional reaction may or may not have a relation with the reading or school situation. It is not easy to rule out all the other factors and determine that a child is failing in reading because of an emotional disturbance. Even if a thorough study of the case leads to the conclusion that the cause is emotional, there remains the difficult task of determining what is causing such an emotional blocking. In one case a little girl began to progress by leaps and bounds after her sister, an epileptic, died. In another case the teacher discovered that a little boy would put forth no observable effort toward learning to read when a little girl, his best friend and an excellent reader, was in the same reading group. When conditions were changed and the little girl was no longer an auditor, the boy improved rapidly with little special help. These examples could be multiplied several times, and no two would be identical. Administrators and teachers must become aware of the possible combinations of conditions and circumstances that are operating all the time to interfere with maximum progress, not only in reading, but in all academic subjects. The suggestions concerning emotional blocking do not call for more information on how to teach reading, but they emphasize the value and the necessity for studying the child.

READING READINESS

The statement that no child should be expected to learn to read until he has attained a mental age of from six years and six months to seven years has been made after observing many children. The greatest progress in learning to read is made after a child has reached this mental age. In schools where there is no kindergarten or in schools where children are permitted to enter Grade I at five years of age or younger, the chances are that undesirable reactions will follow if the children are expected to learn to read in Grade I.

It may be an impossibility for a child of five to learn to read although he may be physically perfect for his age. Perhaps the eyes have not reached the stage of physical maturity adequate for learn-

ing to read. If he is an average child intellectually, his mental age will be only five years. Either one or both of these conditions may be operating, or some other factors which have not been mentioned or about which nothing is yet known may be causing reading inability. Whatever the cause, the child is immature for the situation in which he finds himself, and he is practically certain to meet with failure of some type. There will be a reaction. Perhaps the reaction will not be immediately noticed, but it will be observed eventually. The child may develop a dislike for reading, an emotional response; he may develop a withdrawn, shy behavior, based on the feeling that he cannot succeed; or he may become a bullying, aggressive person to cover up his true feeling of inferiority. No two children will respond in the same way. The school cannot escape the responsibility for behavior resulting from expecting a child to do what he is physically, mentally, and socially incapable of accomplishing.

A mental age of six years and six months implies some background of experience which will be met in the reading situation. The school must arrange the time and the opportunity for the children to become thoroughly acquainted with the material about which they are going to read before they can be expected to enjoy their reading or to read intelligently. Past and present experiences are the basis for the interpretation and understanding of the printed page.

READING AS A CRITERION FOR PROMOTION

The preceding discussion explains and emphasizes the point that ability to learn to read should not be the only criterion for promotion from Grade I or II. Reading plays a prominent rôle in academic success, but it may be that in the early grades academic success has been given too high an evaluation. It seems likely that academic success will follow in proportion to the actual ability inherent in the individual if the school is careful in the early years of a child's growth to insure desirable physical development and a happy, well-adjusted personality. Surround the child with an environment that will challenge him to develop physically, mentally, and socially in keeping with his ability. If he does not so develop, then look for the cause and modify the environment in keeping with the findings.

THE SPELLING DIFFICULTY OF 1,102 WORDS FOUND IN TWENTY SPELLERS

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In an earlier article¹ the writer reported the results of a detailed statistical analysis of twenty modern spellers with reference to (1) the choice of words to be taught; (2) the grade placement of words; and (3) the most effective method of presentation, especially with respect to frequency of occurrence of words in textbooks, to secure permanence of retention.

Of a total of 13,641 different words found in these spellers, 3,630 words are common to eleven or more of the spelling books. Among the 3,630 words are 1,102 words that do not appear in Buckingham's Extension of the Ayres Spelling Scale, the Iowa Spelling Scales, the Sixteen Spelling Scales Standardized in Sentences for Secondary Schools, or the Youngstown Spelling Scale. In order that the difficulty of these words might be determined, the 1,102 words were spelled by children in the elementary schools and the junior high schools of Duluth, Minnesota, and in certain elementary schools of Superior, Wisconsin. The spelling was conducted in the beginning division of each grade during the last week of the first semester of the school year, midyear difficulty being thus secured.

To insure uniformity in conducting the city-wide test, the assistant superintendent of the Duluth public schools issued detailed mimeographed instructions to the teachers, together with the spelling list and a tabulation sheet for each grade.

The teachers marked all papers and returned them with the tabulated results to the office of the assistant superintendent, where the papers were rechecked. The writer compiled the tabulations and computed the percentages of correct spellings of each word in the

¹ Carl T. Wise, "Selection and Gradation of Words in Spelling," *Elementary School Journal*, XXXIV (June, 1934), 754-66.

several grades. A summarized report on the test is presented in Table I. The number of individual spellings of each word is large enough to provide reliable data. According to Ashbaugh, two hundred spellings of a word is "amply sufficient for the degree of accuracy required in placing words in a scale of this type."¹

TABLE I
NUMBER OF WORDS SPELLED IN EACH GRADE

Grade	Number of Schools Participating	Number of Words Spelled	Number of Spellings of Each Word
II B.	32	43	863
III B.	32	154	774
IV B.	31	233	772
V B.	32	201	829
VI B.	32	203	833
VII B.	10	173	557
VIII B.	6	95	634
Total.....	.....	1,102	5,262

The word lists for the different grades with the percentage of correct spellings of each word are presented in Table II. Because the words in these lists are common to eleven or more of twenty standard textbooks in spelling and are well placed as to grade and because they appear to be words which are almost certain to be used by children in their writing, a knowledge of the spelling difficulty should be of much practical use to teachers. The number of words in each of the grades from the third to the seventh, inclusive, is sufficiently large to enable teachers to use the lists as an aid in the construction of spelling lists, supplementary reviews and drills, and spelling tests.

¹ Ernest J. Ashbaugh, *The Iowa Spelling Scales*, p. 24. Journal of Educational Research Monographs, No. 3. Bloomington, Illinois: Public School Publishing Co., 1922.

TABLE II
WORDS TESTED IN GRADE II B TO GRADE VIII B AND PERCENTAGE
OF CORRECT SPELLINGS OF EACH WORD

Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings
Grade II B					
ate.....	73.3	fat.....	80.8	pen.....	56.9
bet.....	60.7	fed.....	43.9	pet.....	56.5
bite.....	33.8	feed.....	55.5	pick.....	29.3
boys.....	85.4	flag.....	43.3	rag.....	61.9
bud.....	37.7	gum.....	36.9	rang.....	25.5
bug.....	39.6	hair.....	29.2	rip.....	41.6
crack.....	20.8	ham.....	55.7	sell.....	37.5
cry.....	62.3	hit.....	56.4	sled.....	35.7
dime.....	37.5	hog.....	36.3	star.....	39.6
doling.....	61.2	hop.....	58.5	tin.....	66.6
drop.....	52.6	kite.....	32.4	tip.....	53.8
dry.....	67.5	lid.....	37.9	tub.....	37.1
dug.....	47.9	mat.....	68.6	wet.....	57.5
dust.....	63.3	pat.....	66.3	wide.....	45.0
eager.....	7.4				
Grade III B					
asked.....	58.3	fold.....	50.1	paw.....	53.0
babies.....	16.3	fool.....	45.7	peck.....	39.5
bath.....	89.3	fresh.....	32.9	peek.....	35.4
birthday.....	48.4	funny.....	44.2	peel.....	16.5
bled.....	38.5	gallon.....	13.6	pie.....	83.2
blot.....	50.8	giving.....	34.8	pious.....	11.0
boxes.....	33.9	grandma.....	58.1	pipe.....	73.9
bunch.....	53.9	gray.....	63.8	played.....	66.4
butter.....	85.7	hatch.....	25.2	playing.....	81.8
cage.....	63.0	having.....	41.5	pony.....	53.6
called.....	68.3	helping.....	53.0	pull.....	62.1
calling.....	76.1	higher.....	44.1	puppy.....	33.9
cane.....	63.8	hook.....	50.5	quart.....	25.3
cape.....	62.9	hundred.....	29.5	rabbit.....	27.8
cart.....	79.9	inches.....	44.1	rake.....	54.3
cents.....	87.2	ink.....	89.3	raw.....	48.1
cherry.....	24.0	jar.....	39.8	reader.....	62.7
chin.....	56.5	jaw.....	27.6	reading.....	69.1
clap.....	65.0	keg.....	20.0	rice.....	73.0
cloak.....	17.4	kitten.....	50.1	riding.....	71.3
comb.....	21.4	knot.....	27.3	robin.....	54.9
cooky.....	18.7	lamb.....	35.5	rode.....	44.6
crust.....	33.9	lame.....	55.2	roof.....	75.2
crying.....	82.4	laughed.....	0.9	root.....	55.9
curl.....	29.2	leaf.....	31.7	roses.....	61.4
deer.....	53.6	leaves.....	19.3	rubber.....	42.5
didn't.....	30.4	lend.....	54.8	Santa Claus.....	17.7
die.....	80.7	letting.....	22.5	scold.....	36.4
dirt.....	27.5	lick.....	38.1	shake.....	38.2
dishes.....	37.6	lies.....	42.9	sheet.....	41.1
drag.....	49.5	lives.....	65.0	shell.....	36.4
drank.....	59.7	longer.....	66.4	shook.....	32.9
dull.....	69.1	looking.....	86.8	singing.....	75.3
eaten.....	50.3	luck.....	42.5	sink.....	68.0
eating.....	75.3	lump.....	41.5	skate.....	37.9
eggs.....	83.6	mice.....	67.7	skip.....	51.7
eyes.....	56.2	muddy.....	19.0	slap.....	67.8
fade.....	49.4	oats.....	39.9	snap.....	63.4
finger.....	54.0	older.....	74.3	sorry.....	71.3
fishing.....	62.4	ours.....	51.7	sour.....	36.7
flew.....	31.4	ox.....	63.3	spade.....	39.1
flowers.....	41.3	pack.....	65.4	spelling.....	68.0
flying.....	73.1	pail.....	43.7	spill.....	52.2

TABLE II—Continued

Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings
Grade III B—Continued					
spin.....	67.6	tent.....	76.6	twice.....	30.8
spool.....	37.2	thinking.....	53.4	vest.....	63.4
strap.....	48.6	tied.....	54.6	wade.....	47.7
string.....	61.3	toe.....	69.7	washed.....	40.8
strong.....	62.4	tore.....	57.4	wax.....	52.8
sung.....	38.3	torn.....	39.5	wheel.....	57.7
tag.....	68.8	tries.....	16.4	whip.....	24.8
tame.....	62.6	trying.....	57.1	yours.....	70.1
tan.....	64.8				

Grade IV B

ahead.....	89.8	creep.....	62.8	hearing.....	75.6
anybody.....	92.2	crossing.....	74.5	hedge.....	28.6
apron.....	51.2	crumh.....	31.3	beef.....	44.8
ashes.....	71.1	cutting.....	76.7	highest.....	62.9
awhile.....	61.3	daisy.....	40.3	hoe.....	59.7
baseball.....	86.7	damp.....	87.0	hollow.....	46.0
bedroom.....	91.3	dancing.....	57.4	hood.....	58.7
beef.....	60.5	darling.....	75.1	howl.....	49.2
beet.....	61.0	dim.....	71.4	I'll.....	83.9
begged.....	24.1	dirty.....	67.2	I'm.....	79.9
berries.....	43.1	ditch.....	39.0	invited.....	78.2
besides.....	83.6	dive.....	81.0	isn't.....	49.6
Bible.....	59.2	doesn't.....	37.7	job.....	81.7
higger.....	34.3	donkey.....	81.2	joke.....	59.8
blanket.....	67.6	dose.....	69.7	juice.....	32.9
bleed.....	61.9	drawing.....	71.4	kettle.....	54.7
blew.....	63.6	dressed.....	72.2	knives.....	27.4
blouse.....	40.8	dusty.....	62.0	ladder.....	50.4
blown.....	58.6	eighty.....	50.0	larger.....	74.5
blush.....	59.1	elm.....	60.4	largest.....	71.3
bonfire.....	55.6	everybody.....	83.2	later.....	73.1
bonnet.....	25.4	everyone.....	84.8	laughing.....	64.2
boss.....	56.2	fern.....	35.2	leak.....	62.9
bowl.....	44.1	fifteen.....	71.4	learned.....	66.1
branches.....	68.0	finished.....	35.8	lime.....	73.9
breath.....	58.8	fireman.....	71.1	loaf.....	53.6
broom.....	69.7	flame.....	54.0	loaves.....	19.4
bucket.....	49.0	flannel.....	15.2	losing.....	34.7
buggy.....	32.4	flies.....	42.6	lunch.....	73.3
bundle.....	37.6	fond.....	76.0	merry.....	57.8
calf.....	61.4	football.....	93.8	minutes.....	40.4
camel.....	65.0	forgive.....	86.5	mollasses.....	19.9
carpet.....	83.1	fourteen.....	43.1	mulc.....	63.5
chalk.....	31.5	froze.....	52.8	neat.....	79.5
changed.....	56.9	geese.....	57.8	needed.....	52.2
chart.....	76.2	giant.....	47.3	nicely.....	51.2
cheat.....	65.5	good-by.....	74.0	oatmeal.....	63.1
cherries.....	35.0	grab.....	73.1	oven.....	91.1
chopped.....	18.3	grandfather.....	73.7	overcoat.....	82.1
chose.....	42.5	grapes.....	67.3	pansy.....	34.1
closet.....	46.0	gravy.....	42.5	pantry.....	54.3
cloudy.....	54.5	greatest.....	47.0	passed.....	51.2
clover.....	87.7	grocer.....	44.7	paste.....	44.9
clown.....	68.4	growl.....	52.2	patch.....	46.2
colony.....	14.8	grown.....	75.4	peas.....	70.5
colt.....	53.0	halves.....	10.1	pepper.....	53.8
couldn't.....	40.7	hammer.....	51.8	pigeon.....	12.7
county.....	54.7	handle.....	50.8	pinch.....	72.0
coward.....	33.9	hasn't.....	46.2	plow.....	83.0
cracker.....	52.1	haul.....	31.1	poem.....	64.4
cradle.....	48.8	haven't.....	60.9	pork.....	82.2
crawl.....	33.7	hawk.....	27.3	post-office.....	64.8

TABLE II—*Continued*

Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings
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Grade IV B— <i>Continued</i>					
potato.....	32.9	skating.....	51.5	studies.....	20.4
potatoes.....	29.0	skirt.....	35.6	studying.....	32.3
prettiest.....	13.6	sleepy.....	58.5	sunb.....	63.8
proved.....	65.6	sleep.....	47.0	taken.....	67.1
pumpkin.....	38.1	slice.....	66.5	talked.....	60.8
putting.....	52.9	smaller.....	54.7	tank.....	76.8
quickly.....	42.4	smart.....	72.7	tease.....	46.4
rack.....	67.1	snake.....	59.0	Thanksgiving.....	39.7
raining.....	74.2	soak.....	37.8	thaw.....	37.2
rattle.....	47.7	somewhere.....	60.2	thirsty.....	32.5
recite.....	29.1	sparrow.....	36.1	thirty.....	40.2
ruler.....	62.6	spider.....	55.2	threw.....	28.6
sash.....	50.7	squirrel.....	15.5	thrown.....	42.0
scar.....	38.8	stack.....	53.4	toast.....	50.8
scout.....	47.3	stain.....	48.0	tough.....	18.9
screw.....	26.6	stalk.....	30.4	tramp.....	68.2
seeing.....	74.5	stayed.....	57.2	turnip.....	31.4
seek.....	65.2	staying.....	70.0	used.....	64.4
seemed.....	51.2	steer.....	38.6	violet.....	42.9
seventeen.....	58.5	stem.....	51.5	wasn't.....	45.6
sewing.....	63.1	stew.....	43.3	watched.....	40.9
shelf.....	59.8	stockings.....	52.9	windy.....	63.9
showed.....	55.6	stool.....	46.4	worm.....	55.1
sidewalk.....	71.4	stout.....	56.8	worst.....	46.6
sixteen.....	72.1	stuck.....	51.2	wouldn't.....	38.8
sixty.....	65.4	studied.....	18.1		

Grade V B					
aboard.....	75.6	chorus.....	20.1	fuel.....	63.1
acorn.....	92.1	chosen.....	52.8	furnace.....	34.1
agent.....	92.9	cigar.....	66.6	geography.....	67.9
all right.....	69.7	cities.....	76.5	glue.....	69.7
aloud.....	76.8	classes.....	82.8	groceries.....	40.3
amuse.....	74.7	closely.....	62.0	happened.....	55.9
answered.....	61.8	colors.....	74.7	harness.....	54.4
anyhow.....	96.0	comma.....	47.2	hatchet.....	42.0
anyone.....	96.5	copies.....	51.3	heal.....	80.7
aren't.....	88.9	cord.....	81.1	hello.....	58.0
backward.....	89.0	crept.....	63.3	helpful.....	76.1
bacon.....	65.6	cripple.....	44.0	hinge.....	55.4
badge.....	78.0	crooked.....	43.8	homesick.....	86.9
bale.....	40.3	curly.....	52.1	hoping.....	55.2
balloon.....	35.6	dairy.....	78.9	hose.....	85.4
bandage.....	50.9	dandelion.....	28.7	I've.....	80.3
banner.....	79.7	deaf.....	67.3	joint.....	67.9
bashful.....	70.4	dining.....	49.3	jolly.....	82.4
behave.....	88.1	dodge.....	58.0	juicy.....	29.0
bloody.....	68.3	drowned.....	45.6	knit.....	42.0
brain.....	83.5	drug.....	84.9	knob.....	55.0
brake.....	68.4	dumb.....	47.4	lantern.....	68.4
brand.....	72.3	dying.....	36.7	lately.....	64.9
bridle.....	64.5	earlier.....	26.9	laundry.....	38.0
buffalo.....	45.4	eighth.....	45.4	lemonade.....	51.3
bullet.....	61.0	elbow.....	69.1	lettuce.....	40.9
buried.....	25.5	excite.....	56.6	lightning.....	41.9
cabin.....	78.9	fairly.....	72.1	lily.....	56.8
calves.....	60.7	fifth.....	90.4	liquid.....	25.3
canary.....	51.4	fitted.....	43.5	loop.....	57.7
cancel.....	27.9	foam.....	59.2	male.....	60.1
careless.....	69.1	forehead.....	65.0	maple.....	84.2
carrot.....	60.4	fraction.....	73.8	meeting.....	80.3
chestnut.....	57.4	frighten.....	58.5	melon.....	48.4
chilly.....	70.0	fudge.....	73.5		

TABLE II—Continued

Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings
Grade V B—Continued					
merit	25.6	replied	63.5	stuff	52.1
mist	73.3	rifle	50.0	stump	75.4
multiply	53.6	risk	78.2	suddenly	47.6
napkin	76.2	robbed	75.1	surprised	42.3
naughty	61.3	robber	82.8	swear	55.2
necktie	66.9	saddle	50.7	sweater	56.1
negroes	20.7	savage	66.5	tablet	86.9
ninth	65.3	scatter	45.7	temper	83.0
notion	54.5	seam	37.4	thankful	90.9
offered	73.1	scams	80.1	thimble	61.1
ounce	62.2	seventh	79.7	tiger	83.5
overalls	57.8	shelves	52.2	timber	82.6
oyster	46.6	shipped	40.5	tomatoes	69.5
parents	66.8	shone	51.5	truck	90.5
partner	71.2	shovel	68.2	tumble	75.6
peanut	73.3	sickness	32.9	turtle	60.7
perch	48.0	slippery	36.6	using	65.0
pitch	65.1	soda	77.8	valentine	37.0
plaster	82.9	solid	36.8	vase	77.6
polite	70.3	spackling	72.2	velvet	60.7
pool	85.6	spear	80.2	wages	74.8
postage	74.9	spoken	79.4	walnut	67.7
powder	58.3	sponge	40.9	weave	67.2
preacher	55.1	squash	38.9	wedding	65.0
priest	30.8	stake	65.5	we'll	62.1
puzzle	34.5	starch	80.9	willow	78.0
quietly	51.8	stare	58.7	witch	62.2
quilt	71.5	starve	75.8	wrapped	26.1
radish	64.3	steady	75.4	wring	51.3
raised	70.6	stirred	15.4	wrist	57.5
raisin	28.7	stoop	49.5	you'll	66.5
ranch	90.1	strait	38.0	zero	63.3
received	42.2				

Grade VI B

active	90.0	cistern	30.3	dividend	45.6
admission	48.5	collection	55.9	dwarf	61.2
adventure	83.1	combine	63.6	educate	70.0
advertisement	41.9	conclusion	46.6	enemies	37.9
agreeable	74.9	contest	95.7	entirely	63.0
aisle	29.2	continent	52.5	envelope	73.8
alcohol	22.6	contrary	60.6	equator	72.1
allowed	59.2	courage	67.7	factories	68.2
alphabet	37.9	creamery	72.7	faith	81.3
arranged	74.3	croquet	43.1	faucet	26.7
arrived	72.5	crutch	43.8	fearful	79.5
artist	77.3	cucumber	52.0	feeble	40.3
attacked	40.8	cunning	76.6	female	62.4
author	67.5	cupboard	29.2	film	82.9
blizzard	34.3	currant	25.0	flavor	80.4
bond	82.8	deceitful	17.4	flutter	70.0
bureau	18.2	decorate	70.8	forever	93.5
cable	86.3	defeat	86.1	foul	57.3
camera	62.8	delighted	88.2	fragrant	41.9
cannon	52.2	dense	56.2	frigid	27.0
carefully	65.4	despise	42.0	fully	87.3
carpenter	86.0	destroyed	61.2	gentlemen	77.7
cashier	64.5	determined	36.4	ghost	52.6
cedar	47.0	disappointed	21.6	goodness	89.9
cement	77.7	disgrace	71.1	graze	71.9
channel	64.3	dislike	94.0	greatly	78.7
chocolate	20.3	disobey	77.7	grieve	35.5
cigarette	26.9	disturb	50.1	groan	54.5

TABLE II—Continued

Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings
Grade VI B—Continued					
grumble.....	79.8	orphan.....	64.9	satin.....	60.4
hardware.....	84.6	palm.....	81.4	scarlet.....	80.8
heroes.....	36.9	parcel.....	51.0	selfish.....	78.5
holy.....	83.6	pause.....	73.9	settlement.....	78.0
horror.....	86.7	peaceful.....	61.0	shallow.....	75.0
household.....	86.1	perfectly.....	69.6	shepherd.....	25.7
humble.....	88.4	perfume.....	76.8	shield.....	66.1
hygiene.....	20.9	phonograph.....	38.8	shipping.....	66.7
ideal.....	79.8	photograph.....	52.6	shrink.....	61.9
impatient.....	41.2	pierce.....	43.3	signal.....	73.0
improved.....	86.7	pitiful.....	40.9	simply.....	77.7
industrious.....	29.4	plane.....	76.9	sincere.....	74.8
insect.....	82.9	planning.....	61.9	sober.....	77.1
insist.....	67.1	plateau.....	35.5	speaker.....	86.4
instruct.....	79.0	pleasing.....	82.2	stubborn.....	35.0
interesting.....	79.0	poison.....	65.4	supposed.....	78.0
invention.....	79.4	prepared.....	79.5	suspect.....	79.4
jacket.....	82.0	pretend.....	81.9	syllable.....	10.9
knead.....	32.0	profession.....	44.6	telegraph.....	60.5
lecture.....	73.8	promote.....	64.5	tennis.....	65.1
ledge.....	65.2	promotion.....	64.2	timid.....	59.9
likely.....	78.4	promptly.....	63.9	toilet.....	69.0
lively.....	92.9	puncture.....	35.1	traveled.....	78.4
locate.....	87.5	quotation.....	73.8	traveling.....	81.9
lovable.....	35.5	railway.....	92.4	trousers.....	67.1
manager.....	68.9	razor.....	45.5	twelfth.....	35.6
mason.....	66.1	rebel.....	46.5	twentieth.....	27.6
messenger.....	56.7	recall.....	97.4	typewriter.....	42.7
method.....	67.2	reduce.....	86.6	umple.....	58.1
mineral.....	75.6	relation.....	81.8	vinegar.....	31.8
mischief.....	60.3	remark.....	95.9	violin.....	61.3
misspell.....	52.1	renew.....	84.3	wealthy.....	64.1
modest.....	79.8	reserve.....	81.6	wholly.....	27.0
muscle.....	23.6	respectfully.....	58.9	widow.....	83.8
muslin.....	40.5	retreat.....	85.1	width.....	73.9
nerve.....	81.4	reward.....	93.2	wither.....	66.8
obedient.....	36.9	salesman.....	63.1	worried.....	66.2
odor.....	41.3	salute.....	56.3	youth.....	93.6
offend.....	49.2	sample.....	93.3	zone.....	96.9
omitted.....	49.5	sandwich.....	50.4		

Grade VII B

abuse.....	84.3	burden.....	76.1	conscientious.....	6.2
accent.....	86.7	burial.....	53.0	consequently.....	36.9
accurate.....	67.7	cauphor.....	47.2	constantly.....	74.4
acid.....	76.4	capable.....	82.6	consult.....	88.4
adopted.....	78.4	carbon.....	64.2	conversation.....	81.5
affection.....	73.9	cartoon.....	67.7	convince.....	70.9
agriculture.....	73.5	catalogue.....	30.3	counsel.....	23.4
analyze.....	13.9	catarrh.....	5.7	courteous.....	43.7
angle.....	87.0	caution.....	65.6	courtesy.....	56.7
appeared.....	83.4	certificate.....	77.5	create.....	80.4
arouse.....	80.4	chairman.....	82.1	crochet.....	11.5
ascend.....	44.4	cinnamon.....	19.6	decent.....	58.0
asparagus.....	38.0	circular.....	68.7	declaration.....	63.6
assistant.....	42.4	circumstance.....	50.3	decline.....	86.7
audience.....	56.9	clause.....	52.5	democrat.....	49.0
aware.....	88.4	compel.....	33.1	depth.....	75.5
awkward.....	32.4	completely.....	55.4	disappointment.....	51.9
bachelor.....	35.8	compliment.....	48.1	disguise.....	46.3
bas.....	60.3	conceal.....	62.2	display.....	95.8
boundary.....	62.0	conceit.....	23.6	dispose.....	87.7
breadth.....	47.0	confess.....	89.4	doubtless.....	75.3

TABLE II—Continued

Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings
Grade VII B—Continued.					
duet.....	64.2	journal.....	56.3	republican.....	80.4
dyeing.....	28.2	lease.....	84.4	respectable.....	77.7
elevator.....	72.8	management.....	56.5	retail.....	86.7
embroidery.....	48.1	manual.....	74.0	ridiculous.....	58.5
endure.....	68.2	masculine.....	17.7	rural.....	31.6
energy.....	67.3	miserable.....	78.4	selection.....	33.5
envy.....	72.6	moisture.....	81.2	signature.....	65.6
evidence.....	62.2	moral.....	66.7	skeleton.....	62.9
exhausted.....	25.4	movement.....	95.6	solo.....	88.1
expel.....	25.0	mystcry.....	39.4	sphere.....	44.6
export.....	64.4	naturally.....	54.7	storage.....	92.3
expression.....	66.7	necessity.....	51.0	stupid.....	84.6
factor.....	89.0	notify.....	71.7	submit.....	72.7
ferocious.....	21.9	obedience.....	51.2	suggest.....	68.2
festival.....	55.0	opera.....	71.8	suitable.....	87.2
fiery.....	31.1	operate.....	82.1	supreme.....	64.4
foreigner.....	41.3	otherwise.....	94.3	surrender.....	72.7
generally.....	59.6	partial.....	54.5	tackle.....	72.0
gracious.....	62.5	patent.....	69.1	talent.....	69.1
gradually.....	58.5	payable.....	92.8	terror.....	76.4
hastily.....	42.4	phrase.....	69.1	thermometer.....	46.0
hereafter.....	87.8	physiology.....	21.7	threaten.....	72.6
hesitate.....	73.3	preferred.....	44.1	tomb.....	83.8
honorable.....	77.1	procession.....	41.8	treatment.....	89.9
ignorant.....	55.2	production.....	93.8	triumph.....	45.3
imitate.....	50.0	prosperous.....	34.6	twilight.....	78.2
import.....	91.2	provoke.....	62.3	typhoid.....	26.1
inclose.....	82.3	psalm.....	45.5	tyrant.....	32.7
initial.....	47.7	quartet.....	51.2	unnecessary.....	40.9
instruction.....	78.8	radiator.....	66.7	varnish.....	85.4
instrument.....	58.9	recently.....	72.4	vary.....	55.2
insult.....	91.6	recollect.....	49.5	venture.....	92.7
introduction.....	73.7	referring.....	40.2	vision.....	76.2
invalid.....	47.0	reigns.....	42.9	warrior.....	60.5
investment.....	86.8	reliable.....	82.1	worship.....	87.2
irrigation.....	72.8	religion.....	75.1	wretched.....	31.4
irritate.....	64.7	republic.....	91.4		

Grade VIII B

abundance.....	76.8	conscience.....	17.7	gingham.....	63.4
acquainted.....	76.9	conscious.....	19.6	graduation.....	90.9
actually.....	74.4	constitution.....	87.2	harmony.....	89.9
affectionate.....	58.8	convenience.....	49.1	horizontal.....	58.4
algebra.....	57.2	corporation.....	72.6	ignorance.....	73.8
alto.....	91.0	correspond.....	68.8	impose.....	87.1
ambitious.....	63.6	correspondence.....	59.1	inconvenience.....	50.6
ammunition.....	57.3	criticize.....	24.6	intelligence.....	52.1
analysis.....	24.8	crystal.....	67.5	irregular.....	63.7
anniversary.....	34.4	definite.....	59.3	jury.....	94.3
apology.....	41.8	definition.....	67.5	justify.....	79.5
atmosphere.....	58.5	delicate.....	79.3	literary.....	85.8
attractive.....	83.0	destination.....	84.7	majority.....	87.1
ballot.....	47.0	diameter.....	84.7	marvelous.....	65.7
bulletin.....	63.2	diet.....	80.7	mechanic.....	56.0
circulation.....	80.4	diploma.....	60.2	merchandise.....	63.1
civilization.....	84.7	discount.....	97.2	monument.....	93.2
community.....	74.4	distinguish.....	52.7	mutual.....	76.6
comparison.....	74.9	distribute.....	78.5	nuisance.....	37.4
complexion.....	46.4	embarrass.....	16.7	occasionally.....	55.8
compound.....	90.4	enormous.....	57.4	opponent.....	40.8
conceive.....	54.7	essential.....	42.1	originally.....	53.3
condemn.....	37.9	executed.....	61.7	particularly.....	54.3
confederate.....	81.5	genius.....	68.9	positively.....	62.8

TABLE II--*Continued*

Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings	Word	Percentage of Correct Spellings
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Grade VIII B--*Continued*

precede.....	30.8	remittance.....	57.6	traitor.....	75.2
prejudice.....	10.5	reputation.....	84.9	transportation.....	88.0
profession.....	50.9	resemble.....	89.1	treasury.....	77.8
proportion.....	78.7	responsibility.....	58.9	tune.....	92.9
prospect.....	91.5	revenue.....	78.2	universal.....	84.3
protection.....	94.3	substantial.....	43.2	ventilate.....	77.4
pulse.....	85.6	substitute.....	77.1	ventilation.....	70.5
pursuit.....	52.3	temptation.....	69.2		

THE EFFECT OF EARLY HANDWRITING INSTRUCTION

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Much has been said in recent years both for and against the revival of manuscript handwriting as a form of writing to be taught in the school. From a questionnaire sent in the autumn of 1933 to the larger school systems in the country, the writer learned that there has lately been a tendency for many of the leading school systems to adopt manuscript handwriting for the primary grades only and to change the method of instruction to cursive writing at the beginning of the intermediate grades.

EARLIER STUDIES

Other studies in this field have found that the use of manuscript handwriting in the primary grades produced favorable results, not only in penmanship, but also in reading and composition work. Turner¹ found that in the lower grades manuscript writing was superior to cursive writing in speed and quality of writing. However, as the children progressed through the grades, the speed of cursive writing gradually increased until in Grade VI it was superior to that of the manuscript method. Reeder² concluded from his study that it is entirely possible to teach children to speed up manuscript writing to the point of efficiency necessary in Grade V. Winch,³ of London, found that manuscript writing taught in the lower grades did not affect the learning of cursive writing if the shift in style was made

¹ Olive G. Turner, "The Comparative Legibility and Speed of Manuscript and Cursive Writing," *Elementary School Journal*, XXX (June, 1930), 780-86.

² Edwin H. Reeder, "An Experiment with Manuscript Writing in the Horace Mann School," *Teachers College Record*, XXVIII (November, 1926), 255-60.

³ W. H. Winch, "Print-Script and Cursive-Script in Schools: An Investigation in Nervo-muscular Readjustments," *Forum of Education*, IV (November, 1926), 206-22.

early in the course of the school work. Gates and Brown¹ report practically the same findings. In studying the relative effects of cursive and manuscript writing on beginning reading, Voorhis² found that the latter was definitely superior. Arnold³ and Wahlert⁴ believe that children in the lower grades express themselves more freely and write better compositions if they are taught manuscript rather than cursive writing.

PROBLEM OF THE PRESENT INVESTIGATION

The study reported in this article approached the problem of the relative merits of cursive and manuscript writing from a new angle; it aimed to discover whether the findings and claims of other investigators carry over when pupils are shifted from manuscript to cursive writing early in the course of the school work. In other words, the problem was to determine what effect the shift from manuscript to cursive writing has on the pupils' writing and composition work in the intermediate grades.

THE EXPERIMENTAL PROCEDURE

The experiment from which these data were taken was carried on during the school year 1933-34 in four cities in the Great Lakes region of the United States. The cities were selected on the basis of the following criteria: (1) size, (2) location, (3) size of school population, (4) method of handwriting instruction in use, (5) the time when the shift to cursive writing is made, and (6) the time devoted to the teaching of handwriting. It was reasoned that a typical sample would be obtained by taking a sample of the pupils in each school system, for all the cities were of metropolitan character, each having a large and varied school population. The control cities were Oak

¹ Arthur I. Gates and Helen Brown, "Experimental Comparisons of Print-Script and Cursive Writing," *Journal of Educational Research*, XX (June, 1929), 1-14.

² Thelma G. Voorhis, *The Relative Merits of Cursive and Manuscript Writing*, pp. 9-45. Lincoln School Research Studies. New York: Lincoln School of Teachers College, Columbia University, 1931.

³ Esther Whitacre Arnold, "The Transition from Manuscript to Cursive Writing," *Elementary School Journal*, XXXIII (April, 1933), 616-20.

⁴ Jennie Wahlert, "Manuscript Handwriting," *Childhood Education*, VIII (June, 1932), 517-21.

Park, Illinois, and Gary, Indiana, and the experimental cities were Aurora, Illinois, and Grand Rapids, Michigan. Oak Park and Aurora used the Zaner-Bloser method of handwriting, while Gary and Grand Rapids used the Palmer system. In the experimental cities manuscript writing was taught in the first two grades, and the shift to cursive writing was made at the beginning of Grade III. Cursive writing was taught in all the grades of the control cities. Consequently, Grades III, IV, and V were used in the experiment. The pupils were equated, so far as possible, on the basis of ability and length of instruction; that is, if any of the grades were sectioned for ability, then all sections of the grades were used in collecting specimens. In order that the length of instruction should be the same, only those pupils were selected as subjects who had had at least one semester of instruction in cursive writing. This plan was followed in order that the pupils of the experimental group would have been given a chance to make the necessary adaptation to the new style.

Two specimens were collected from each pupil, a handwriting specimen and a composition specimen. For the handwriting tests the pupils were asked to write the numeral names, "one," "two," "three," "four," "five," without inserting commas, for a period of three minutes. These tests were administered by the writer in all the schools except those of Grand Rapids, Michigan, where the work was done under the direction of the handwriting supervisor. The compositions were written on the topic "What I Do on Saturday" and were written under the direction of the regular teacher during the regular composition hour according to a set of directions furnished by the writer of this article. A total of 3,147 specimens was collected.

The handwriting specimens were analyzed for speed and quality of writing, the latter being determined by comparison with the Kansas City Scale for Measuring Handwriting. The compositions were analyzed for the number of words used, the number of sentences used, and the quality of composition as determined by comparison with the Nassau County Supplement to the Hillegas Scale for Measuring the Quality of English Composition. In order to secure a reliable score on quality for both the handwriting and the composition

papers, the writer obtained two independent judgments for each specimen and used the mean of these two as the score on quality.

The means of each class in speed and quality of writing and in length and quality of their compositions were determined. Calculation was made of the probable error of the difference between the score of the control group and the score of the experimental group on each factor, and the critical ratio was determined by dividing the obtained difference by its probable error. If the critical ratio is four or greater, the obtained difference may be considered statistically significant; in other words, all the obtained difference is not due to accidental fluctuations in sampling and the true difference is practically certain to be in the same direction as the obtained difference. If the critical ratio is less than four, the true difference may be in the same direction as the obtained difference, it may be in the opposite direction, or it may be zero.

RESULTS IN HANDWRITING

The mean speed of writing and the mean scores on quality for the control group and the experimental group are shown in Table I, with the obtained differences and the critical ratios. The obtained difference in speed in Grade III is in favor of the control group, while in Grades IV and V it is in favor of the experimental group. The critical ratios for all three differences in speed are less than four.

The data show an increase in speed of writing for the experimental pupils as they progress through the grades. Immediately after the shift to cursive writing they write more slowly than the control group, but they surpass the control pupils in the following years. The specimens of the third-grade experimental group show a drawing of letters rather than a definite swinging movement. This characteristic may be due to the shift in style of writing, but it causes no apparent difficulties and the swinging movement of cursive writing is easily learned, as is shown by the fact that the speed of writing of the experimental pupils in Grades IV and V surpasses that of the control group. The critical ratio of the difference in speed in Grade V is only a fraction less than four, and the chances are about ninety-eight in a hundred that the true difference is in the same direction as the obtained difference. However, to say that this difference is caused

by the teaching of manuscript writing in the lower grades would be incorrect. By the time the pupils have reached Grade V, many factors affecting the speed of writing have entered in, and these factors—maturation, for example—surely exert a greater influence on writing than does a shift in style made two years earlier. Since none of the differences between the experimental group and the control

TABLE I
MEAN NUMBER OF LETTERS WRITTEN A MINUTE AND MEAN
SCORE ON QUALITY OF HANDWRITING OF EXPERIMENTAL
AND CONTROL GROUPS

	Grade III	Grade IV	Grade V
Number of specimens:			
Experimental group.....	204	277	240
Control group.....	152	383	378
Mean number of letters written a minute:*			
Experimental group.....	41.50 ± .631	52.95 ± .717	59.60 ± .671
Control group.....	42.10 ± .765	52.55 ± .427	56.60 ± .426
Difference.....	— .60 ± .992	.40 ± .835	3.00 ± .795
Critical ratio.....	.60	.48	3.77
Mean score on quality:			
Experimental group.....	9.73 ± .041	10.09 ± .037	10.38 ± .047
Control group.....	9.65 ± .049	10.20 ± .030	10.63 ± .038
Difference.....	.08 ± .064	— .11 ± .048	— .25 ± .060
Critical ratio.....	1.25	2.29	4.17

* The norms are: 42 in Grade III, 46 in Grade IV, and 50 in Grade V.

group in speed of writing are statistically significant, no definite statement regarding the true difference is justified. The true difference may be in favor of the control group, it may be in favor of the experimental group, or there may be no difference whatever between the two groups.

The scores on quality of handwriting show a result exactly the opposite of the situation found in the case of speed of writing. In Grade III the quality of the writing of the experimental group is slightly better than that of the control group, but the difference shifts to favor the control group in Grades IV and V. These data

seem to show that shifting the style of handwriting has no immediate effect on quality of writing but that pupils who make no shift in style of writing have a better chance to increase the quality of their writing as they progress through the grades.

In Grade V there is a statistically significant difference in quality in favor of the control group. The true difference, therefore, is practically certain to be in the same direction as the obtained difference. However, since the obtained difference is only a quarter of a point, it is not of great practical consequence. Few school systems, if any, would change their method of handwriting instruction merely because a different method raised the score on quality a quarter of a point. However, in view of the critical ratios of 2.29 in Grade IV and 4.17 in Grade V, both favoring the control group, it may be argued that training in cursive writing from the beginning results in better quality of handwriting in the later grades. In other words, it might be said that children making no shift in their style of writing advance more in quality of writing because of the longer time they have to practice their particular style. On the other hand, it might be argued that, by the time the pupils of the experimental group reach Grade V, the shift to cursive writing is too far behind them to hinder or to aid their quality of handwriting and that the obtained difference is caused largely by factors which could not be held constant in the study. However, since a difference of a quarter-point seems of little consequence, it is immaterial which line of reasoning the reader accepts as the more logical.

RESULTS IN COMPOSITION

The scores on the compositions are shown in Table II. In the case of quality all the critical ratios are significant. However, the differences in Grades III and IV favor the experimental group, while the difference in Grade V favors the control group. These data show that it is practically certain that the true difference in quality is in favor of the experimental group in Grades III and IV and in favor of the control group in Grade V. However, it is unreasonable to assume that the type of script used in the primary grades would cause a statistically significant superiority in one direction for one grade

and in the opposite direction for the next grade. The form or method of handwriting is probably only a minor factor in determining quality of composition.

The difference in the average number of sentences used in the compositions of the two groups is a statistically significant difference

TABLE II
DATA CONCERNING COMPOSITIONS WRITTEN BY
EXPERIMENTAL AND CONTROL GROUPS

	Grade III	Grade IV	Grade V
Number of specimens:			
Experimental group.....	152	241	248
Control group.....	209	347	316
Mean score on quality of compositions:			
Experimental group.....	$2.77 \pm .061$	$3.32 \pm .044$	$3.83 \pm .054$
Control group.....	$2.38 \pm .046$	$2.90 \pm .034$	$4.26 \pm .049$
Difference.....	$.39 \pm .076$	$.42 \pm .056$	$-.43 \pm .073$
Critical ratio.....	5.13	7.50	5.89
Mean number of sentences used:			
Experimental group.....	$6.50 \pm .169$	$5.90 \pm .132$	$6.86 \pm .131$
Control group.....	$5.39 \pm .135$	$5.78 \pm .102$	$7.28 \pm .109$
Difference.....	$1.11 \pm .216$	$.12 \pm .166$	$-.42 \pm .170$
Critical ratio.....	5.14	.72	2.47
Mean number of words used:			
Experimental group.....	57.30 ± 1.58	62.60 ± 1.35	77.50 ± 1.36
Control group.....	44.50 ± 1.05	$50.50 \pm .965$	73.35 ± 1.08
Difference.....	12.80 ± 1.90	12.10 ± 1.66	4.15 ± 1.74
Critical ratio.....	6.74	7.29	2.39

in favor of the experimental group in Grade III, but the differences in Grades IV and V are not significant. If the claims of the advocates of manuscript writing are accepted, namely, that pupils trained to use manuscript writing have a larger vocabulary at their command than have pupils who use cursive writing (in other words, that they can write longer compositions), the evidence presented seems to show that there is a certain amount of carry-over immediately after the shift to cursive writing is made. The fact that no significant differences were found in Grades IV and V does not discredit this con-

clusion because pupils in the control group are learning to write longer compositions as they progress through the grades, while the influence of manuscript training, which caused the pupils of the experimental group to use more sentences early in the course of the school work, is rapidly giving way to other immediate factors influencing composition, such as maturation.

The same interpretation can be given to the evidence on the mean number of words used in the compositions. The data show statistically significant differences for Grades III and IV in favor of the experimental group. It is practically certain, therefore, that the true differences in these grades are in the same direction as the obtained differences. The obtained difference in Grade V, although in favor of the experimental group, is not statistically significant. If it is accepted that pupils using manuscript writing can, on the whole, express themselves with more ease than pupils using cursive writing, then the evidence presented here seems to show some carry-over of this ability when the type of script is shifted. However, since the ability to use many words is only one index of the ease with which a person can express his thoughts, no absolute statement with regard to this carry-over can be made on the basis of the data gathered in this experiment.

CONCLUSIONS

Several conclusions seem to be justified by this study.

1. Pupils taught manuscript writing in Grades I and II experience little difficulty in shifting their style of handwriting in the later grades.

2. Speed of writing in the intermediate grades is not affected by the type of handwriting instruction given in the lower grades. The experimental pupils write more slowly immediately after the shift to cursive writing than do the control pupils, but they equal and surpass the speed of the control group in the later grades. The lower speed in Grade III may be due to the shift in style, but the gain in speed in the later grades cannot be attributed to the shift because other factors, such as the length of time since the shift took place, the maturation of the pupils, and the current emphasis on writing instruction, probably influence speed of writing more than does the shift in style made some time before.

3. No evidence of superiority in developing an acceptable quality of writing is shown for either type of handwriting instruction in the early grades. The experimental group was slightly superior in quality immediately after the shift in style was made, but in the later grades the control group exhibited a higher quality of handwriting. A carry-over of the emphasis that manuscript writing places on form of writing rather than on movement of writing may be the cause of this difference in Grade III. The differences in Grades IV and V seem to be caused by factors other than the shift. If the influence of the shift in style was not strong enough to cause a statistically significant difference favoring the experimental group in Grade III, it does not seem reasonable that the shift would be a strong enough handicap to cause a statistically significant difference in the opposite direction in the later grades.

4. If the claim is accepted that pupils in the primary grades using manuscript writing can write longer compositions and can express themselves with greater ease than pupils using cursive writing, then the evidence of this study seems to show that there is some carry-over when a shift in handwriting style is made.

5. The data gathered give no evidence that either form of handwriting training in the early grades is conducive to better quality of compositions in later grades.

SELECTED REFERENCES ON TEACHER EDUCATION^{*}

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The references included in this bibliography, with the exception of a few items which came to the compiler's attention too late to be included in last year's list, were published between July 1, 1934, and June 30, 1935. These publications discuss significant issues relating to the education of teachers in elementary and secondary schools and in higher institutions. Three criteria were used in selecting from the much larger number of references published those included in this list: (1) objective analyses and statistical accounts of important aspects of teacher education; (2) comprehensive reports in the form of bulletins, yearbooks, and reports of proceedings; and (3) materials which are reasonably accessible.

611. ADAMS, KARL L., and PETERSON, O. E. "The Training of High School Teachers," *Bulletin of the Northern Illinois State Teachers College*, Vol. IV, No. 1, pp. 1-50. De Kalb, Illinois: Northern Illinois State Teachers College, 1934-35.

Describes the methods employed in the training of secondary-school teachers and gives a brief explanation of the principles involved.

612. ALEXANDER, THOMAS (Chairman). *The Education of Teachers*. Yearbook XXIII of the National Society of College Teachers of Education. Chicago: University of Chicago Press, 1935. Pp. 266.

Presents brief criticisms of the National Survey of the Education of Teachers and considers at length principles underlying progressive practice with respect to the selective admission and promotion of teachers; curriculum content and pattern; directed teaching; and the demand, supply, and certification of teachers.

613. AMERICAN ASSOCIATION OF TEACHERS COLLEGES. *Fourteenth Yearbook of the American Association of Teachers Colleges, 1935*. Oneonta, New York: Charles W. Hunt (Secretary, % State Normal School). Pp. 152.

^{*} See also Item 512 in the list of selected references appearing in the November, 1935, number of the *Elementary School Journal* and Item 553 in the November, 1935, number of the *School Review*.

Includes the proceedings of the 1935 meeting of the association. The major themes were: "The Current Economic Status of the Teachers Colleges," the place of the training school in professional training, "The Teachers College Faces the Future," "The Measure of a College Is the Character of Teaching It Has To Offer."

614. BALLOU, WILLARD ALGER. *A Comparative Study of State Teachers College Faculties and Liberal Arts College Faculties*. Doctor's Thesis in Education, Graduate School, University of Pennsylvania, 1933. Pp. xiv+78. Compares the faculties of fourteen state teachers' colleges and fourteen liberal arts colleges in five widely distributed states with respect to age; sex; and social, economic, and professional status.
615. BARR, A. S. "The Measurement of Teaching Ability," *Journal of Educational Research*, XXVIII (April, 1935), 561-69. Discusses the value of measurements of teaching ability in professional education, summarizes various investigations in this field which have been conducted at the University of Wisconsin, and discusses the needs for further research.
616. BARR, A. S., and DOUGLAS, LOIS. "The Pre-Training Selection of Teachers," *Journal of Educational Research*, XXVIII (October, 1934), 92-117. Summarizes numerous reports of recent theories, practices, and investigations relating to the pretraining selection of teachers.
617. BRANDENBURG, G. C., and TRIMBLE, O. C. "What the Public School Administrator Thinks of Professional Training in Education," *School and Society*, XL (December 22, 1934), 850-56. Summarizes replies received from 623 high-school principals, county superintendents, town and city superintendents, and members of college faculties to the questionnaire formulated by Committee Q of the American Association of University Professors.
618. BRECHBILL, HENRY. "The Value to Science Teachers of a Course in the Teaching of Science," *Educational Administration and Supervision*, XX (October, 1934), 541-47. Summarizes value rankings of courses in education by two hundred teachers of high-school science.
619. BROWN, H. A. "Curriculum Revision in a Teachers' College," *Journal of Higher Education*, V (December, 1934), 490-96. Discusses curriculum revision in a teachers' college and the theoretical scaffolding upon which it was based.
620. BURKE, ARVID J. "Professional Courses for Secondary School Principals," *Educational Administration and Supervision*, XX (October, 1934), 506-12. Summarizes 1933 laws concerning the requirements for secondary-school principals' certificates, the courses provided in over 70 institutions for high-school principals, and the opinions of 190 principals in New York State as to the value of professional courses.

621. BUTTERWECK, JOS. S. "Training Fine Arts Teachers," *School and Society*, XLI (March 9, 1935), 335-38.
Describes the new program for prospective teachers of the fine arts initiated at Temple University in the autumn of 1934.
622. CAHOON, G. P., and MACKAY, MINNETTE. "Does a Teacher-training Program Adequately Prepare Teachers?" *School and Society*, XL (August 18, 1934), 228-32.
Summarizes replies from 216 graduates of the University of California secured in response to a questionnaire.
623. CARROTHERS, GEORGE E. "The Secondary School as a Career for the Doctor of Philosophy," *North Central Association Quarterly*, IX (April, 1935), 424-33. (Same in the *Journal of Proceedings and Addresses of the Thirty-sixth Annual Conference of the Association of American Universities*, 1934, pp. 86-97.)
Presents data concerning the number of Doctors' degrees in the sciences conferred in 1933 and the possibility of placing the holders in college positions and of using them in secondary-school positions.
624. CHARTERS, W. W. "Teacher Training Curricula at Ohio State University," *Educational Outlook*, IX (March, 1935), 158-71.
Describes the work of the committee on curriculum reorganization at Ohio State University in planning programs of teacher education.
625. CLARK, FELTON G. *The Control of State-supported Teacher-training Programs for Negroes*. Teachers College Contributions to Education, No. 605. New York: Teachers College, Columbia University, 1934. Pp. vi+108.
Summarizes the results of a study of existing programs of control of twenty-nine state institutions engaged in the preparation of negro teachers.
626. COLLINS, EARL A. "Value of Practice Teaching in the Training of Teachers," *Peabody Journal of Education*, XII (March, 1935), 233-37.
Summarizes judgments concerning general and specific values of directed teaching in a program of teacher preparation.
627. COPELAND, J. I. "Periodical Checklist for a Teachers College Library," *Peabody Journal of Education*, XII (July, 1934), 37-47.
Presents a list of periodicals judged by 136 librarians in teachers' colleges to be suitable for use in a teachers' college library.
628. COXE, WARREN W., and CORNELL, ETHEL L. *The Prognosis of Teaching Ability of Students in New York State Normal Schools*. University of the State of New York Bulletin, No. 1033. Albany, New York: University of the State of New York Press, 1934.
Reports the relations between a series of entrance tests given to entering students in ten normal schools and success in teaching after graduation.

629. CRANE, ESTHER. "The Training of Secondary School Teachers in England," *Educational Record*, XV (October, 1934), 455-70.
Discusses the development and present status of teacher education at the secondary-school level in England.
630. CRAWFORD, C. C., and NEILSEN, ALICE A. "Student-teaching Requirements and Facilities in Teachers Colleges," *School and Society*, XLI (May 18, 1935), 684-86.
Summarizes data secured from an analysis of the bulletins of 106 teachers' colleges.
631. CUNNINGHAM, HARRY A. "Rooms, Service and Furnishings for Biology Departments in Teachers Colleges," *The American School and University* (1933-34 edition), pp. 310-14. New York: American School Publishing Corporation.
Presents the results of a study of the rooms, service, and furnishings found in departments of biology in outstanding teacher-training institutions in ten eastern and middle western states.
632. DILLEY, FRANK BROWN. *Teacher Certification in Ohio and a Proposed Plan of Reconstruction*. Teachers College Contributions to Education, No. 630. New York: Teachers College, Columbia University, 1935. Pp. viii+164.
Traces the history of teacher certification in Ohio, evaluates present practices, and submits a proposed plan of certification of teachers in Ohio.
633. ELIASSEN, R. H. "Pre-Training Selection of Teachers during 1933," *Educational Administration and Supervision*, XX (September, 1934), 448-53.
Summarizes contributions of twenty-four articles and books relating to the pre-training selection of teachers published during part of 1932 and during 1933.
634. ELIASSEN, R. H., and ANDERSON, EARL W. "Investigations of the Teacher Supply and Demand Reported in 1934," *Educational Research Bulletin*, XIV (March 13, 1935), 61-66.
Discusses the chief findings of twenty-two investigations of teacher supply and demand reported in 1934.
635. EVENDEN, E. S. *Summary and Interpretation*. National Survey of the Education of Teachers, Vol. VI. United States Office of Education Bulletin No. 10, 1933. Pp. xiv+254.
The volume is intended to serve two groups: (1) the layman and the general student of education and (2) those who are directly concerned with the education or the employment of teachers.
636. EVENDEN, EDWARD S., GAMBLE, GUY C., and BLUE, HAROLD G. *Teacher Personnel in the United States*. National Survey of the Education of Teachers, Vol. II. United States Office of Education Bulletin No. 10, 1933. Pp. xii+258.

- Presents the results of the National Survey of the Education of Teachers concerning the teacher personnel in public schools and in institutions of higher education and concerning the student personnel (prospective teachers).
637. FITZPATRICK, FREDERICK L. "Biology Courses for General Science and General Biology Teachers," *Teachers College Record*, XXXVI (January, 1935), 292-302.
Considers the types of courses essential in the training of junior and senior high school teachers of biology and general science.
638. FRAZIER, BENJAMIN W.; BETTS, GILBERT L.; GREENLEAF, WALTER J.; WAPLES, DOUGLAS; DEARBORN, NED H.; CARNEY, MABEL; and ALEXANDER, THOMAS. *Special Survey Studies*. National Survey of the Education of Teachers, Vol. V. United States Office of Education Bulletin No. 10, 1933. Pp. xvi+484.
Reports the results of a series of nine special studies carried on in connection with the National Survey of the Education of Teachers.
639. FREDERICK, ROBERT W., and HOLLISTER, FRED C. "The Relationship between the Academic Success of Pupils and the Practice Teaching Grade Received by Their Teachers," *Educational Administration and Supervision*, XX (September, 1934), 468-71.
Compares the grades received by 132 practice teachers with the academic success of their pupils.
640. GREULACH, VICTOR A. "The Status of Educational Biology in Selected Colleges," *Faculty News Bulletin*, V (June 10, 1935), 2-13. New Concord, Ohio: Muskingum College.
Reports the result of a study of the status of introductory integrated courses in biology in institutions that prepare teachers in eight states.
641. HARPER, CHARLES A. *Development of the Teachers College in the United States—With Special Reference to the Illinois State Normal University*. Bloomington, Illinois: McKnight & McKnight, 1935. Pp. 384.
Discusses the founding of the Illinois State Normal University and traces its development until 1930.
642. HART, W. L. (Chairman). "Report on the Training of Teachers of Mathematics," *American Mathematical Monthly*, XLII (May, 1935), 263-77.
Presents the report of a subcommittee of the Commission on the Training and Utilization of Advanced Students of Mathematics of the Mathematical Association of America.
643. JONES, ARTHUR J. "The Curriculum of the School of Education," *Educational Outlook*, IX (May, 1935), 226-43.
Describes the work of the curriculum committee of the School of Education of the University of Pennsylvania in reorganizing programs for the preparation of teachers.
644. KRINER, HARRY L. "Second Report on a Five Year Study of Teachers College Admissions," *Educational Administration and Supervision*, XXI (January, 1935), 56-60.

- Discusses the relation between various items, such as the dean's prophecy, scores on tests, college marks, and ability in student teaching, and the later teaching success, as judged by superintendents, of fifty-five teachers who had completed one year of teaching.
645. LAMSON, EDNA E. "The Challenge to Institutions Preparing Teachers for Elementary Schools," *Educational Administration and Supervision*, XXI (January, 1935), 1-12.
Summarizes the scores made on the Army Alpha intelligence examination by five groups of students taking a course in tests and measurements.
646. LAND, ADELLE H. "The Comparative Merits of the Liberal Arts College and the Teachers College in the Education of High School Teachers in the United States," *Educational Administration and Supervision*, XXI (May, 1935), 381-91.
Compares the merits of the two types of institutions in terms of seven principles "set forth in many accepted sources and justified by experience."
647. MCCONNELL, ROBERT E. "Qualities of Leadership Essential to the Presidency of a Teachers College," *Educational Administration and Supervision*, XX (November, 1934), 599-605.
Discusses the qualifications, major administrative duties, and the institutional and public relations of the president of a teachers' college.
648. MARTIN, C. W. "The Testing Program for the General College of the State Teachers College, Kirksville, Missouri," *Peabody Journal of Education*, XII (September, 1934), 74-77.
Recommends tests of five types: pretests, comprehensive course tests, comprehensive tests covering an entire subject-matter field, tests as teaching devices, and clinical testing.
649. MEAD, A. R., and ORR, M. L. "Second Annotated List of Manuals for Observation, Participation and Student-teaching," *Educational Administration and Supervision*, XX (December, 1934), 659-70.
Includes references to forty-six manuals.
650. MESSENGER, HELEN R. "What Does a Director of Training Do?" *Educational Administration and Supervision*, XX (November, 1934), 569-77.
Discusses the duties of a director of teacher training and shows the distribution of time spent by one director during a semester.
651. MILLER, GEORGE J. "Preparation of Geography Teachers," *Education*, LV (January, 1935), 277-80.
Presents five basic principles underlying a program of teacher education in geography and suggests steps essential in making the plan function.
652. MYERS, ALONZO F. (Editor). *Problems in Teacher-training*. Proceedings of the 1934 Spring Conference of the Eastern States Association of Professional Schools for Teachers, Vol. IX. New York: Prentice-Hall, Inc., 1934. Pp. xx+284.

The major themes of the conference were "The Extent and Nature of the Over-supply of Teachers in the Eastern States" and "Changing Emphases in Teacher Education in Response to Changing Social Needs."

653. OLSON, OVE S. "Follow-up Practices in Teacher-training Colleges in Eight North-Central States," *Educational Administration and Supervision*, XXI (January, 1935), 45-50.
Summarizes the replies received from sixty-four teacher-training colleges in response to a questionnaire on follow-up work for teachers.
654. PEIK, W. E. "Certain Curriculum Trends of Teacher Education in Universities and Colleges," *Educational Outlook*, IX (January, 1935), 65-82.
Presents data secured in the National Survey of the Education of Teachers.
655. POTTHOFF, EDWARD F. "Teaching Combinations: Reductio ad Absurdum," *School Review*, XLIII (June, 1935), 417-27.
Summarizes the results of a study based on "combinations of subjects taught during the first semester of the school year 1931-32 by 3,490 teachers in the 525 public four-year high schools" of Illinois having no more than 20 teachers.
656. *Proceedings of the Fourth Annual Conference on Teacher Education Held at the Indiana State Teachers College, April 27 and 28, 1934*. Teachers College Journal, Vol. VI (September, 1934). Terre Haute, Indiana: Indiana State Teachers College. Pp. vi+94.
Includes the addresses presented at the general and the sectional meetings of the conference.
657. ROEMER, JOSEPH. "A Teacher Service Program for Extra-curricular Activities in Secondary Schools," *Peabody Journal of Education*, XII (May, 1935), 276-82.
Summarizes previous investigations relative to the demand made on teachers for extra-curriculum duties and analyzes course offerings in this field by institutions engaged in preparing teachers.
658. RUGG, EARLE U., PEIK, WESLEY E., FOSTER, FRANK K., JOHN, WALTON C., and RAUP, ROBERT B. *Teacher Education Curricula*. National Survey of the Education of Teachers, Vol. III. United States Office of Education Bulletin No. 10, 1933. Pp. xviii+548.
Presents the results of the survey with respect to curriculums for teachers in normal schools and teachers' colleges, the training school in the education of teachers, summer sessions for teachers, graduate work in the education of teachers, and educational philosophies held by the faculty members in schools for the professional education of teachers.
659. SMITH, DAVID EUGENE. "Challenging Problems in American Schools of Education: II. Necessary Steps for a Solution of These Problems," *Teachers College Record*, XXXVI (April, 1935), 566-92.
Discusses the lack of balance between a knowledge of the theories of education and a knowledge of the subjects to be taught and describes new kinds of schools of education of a scholarly type.

660. SMITH, HARRY P. "The Student Teacher and High School Achievement," *Journal of Educational Research*, XXVIII (May, 1935), 657-63.
Compares the progress made during a semester by experimental and control groups in the Senior year of the high schools of Syracuse, New York.
661. *State Requirements for Teaching Certificates*. Chicago: Board of Vocational Guidance and Placement, University of Chicago.
Summarizes requirements for certificates to teach in high school.
662. SUPERVISORS OF STUDENT TEACHING. *Fifteenth Annual Session of the Supervisors of Student Teaching, Atlantic City, New Jersey, February 25 and 26, 1935*. Upper Montclair, New Jersey: John G. Flowers (Secretary-Treasurer, % State Teachers College), 1935. Pp. 62.
Includes the addresses presented at the fifteenth annual session of the association on the general themes: "The Relation of Laboratory School Experiences to Courses in Education," "Essential Factors in a Follow-up Program," "The Case Method Technique in Supervision," and "Training the Youth To Teach."
663. THEISEN, W. W. "The Problem of Teachers for the New Education," *Social Change and Education*, pp. 164-87. Thirteenth Yearbook of the Department of Superintendence. Washington: Department of Superintendence of the National Education Association, 1935.
Discusses administrative reforms and institutional and curricular changes essential in securing improvement in the preparation of the teaching staff.
664. WALLIN, J. E. WALLACE. "Grade Teachers Are Not Qualified To Handle Handicapped and Maladjusted Pupils," *Nation's Schools*, XVI (July, 1935), 37-39.
Discusses the need of adequate preparation of elementary-school teachers to provide for and direct handicapped and maladjusted pupils.
665. WAMPLER, R. L., and WELTE, H. D. "Personal Difficulties of Prospective Teachers," *Journal of Educational Sociology*, VIII (October, 1934), 67-76.
Discusses personal difficulties experienced by prospective teachers.
666. WHITNEY, FREDERICK L. "Curriculum Emphasis," *Journal of Higher Education*, VI (January, 1935), 35-38.
Discusses levels of student development and desirable corresponding differentiations in the content and the methods of teaching in a teachers' college.
667. WREN, F. L. "The Scholarly Teacher of Mathematics," *Kadelpian Review*, XIV (November, 1934), 20-28.
Considers the training essential for competence in teaching mathematics.

Educational Writings

REVIEWS AND BOOK NOTES

Americanization of the forum.—Commissioner Studebaker's book¹ purports to cover the first two years of a five-year program of adult education financed by the Carnegie Corporation of New York. In the Foreword, Morse A. Cartwright, director of the American Association for Adult Education, describes the book as a "liberal document" and declares that the "choice [of Mr. Studebaker] for the important federal position that he now occupies is attributable . . . to the success of his pioneering effort" in this adult-education project. As commissioner of education, says Mr. Cartwright, the author "is expressing his philosophy in action . . . through national plans already advanced and in the making" (p. x).

Essentially, the book contains three sections. In the first the author states the needs and purposes of education as he sees them; in the second he describes the Des Moines forums; and in the third he gives the names of the forum leaders and panel members and information concerning programs, attendance, and methods of study.

The first chapter is a trifle exhortatory and not particularly well organized. It starts with the statement that "our war-racked, depression-ridden world is swept by forces inexorably demanding economic and social reconstruction" (p. 3). "Most American socialists," says the author, "though seeking changes in our economic system" wish to bring these changes about "by democratic processes like public discussion" (p. 3). He believes further that, unless we train our citizens into the "values and *methods* of co-operative effort," we may "be forced into some catastrophic change in our philosophy and *practice* of life and government" (p. 5; italics not in the original). The threat is definite enough, but the "forces" are left somewhat vague. Obviously, the objective is a leftist brand of collectivism.

Mr. Studebaker seems to believe that the choice is between dictatorship and democracy. He apparently does not distinguish between democracy and socialism or democracy and communism. He asks, "Are we to give up the great American dream?" and answers by saying, "Out of the welter of present-day

¹ John W. Studebaker, *The American Way: Democracy at Work in the Des Moines Forums*. New York: McGraw-Hill Book Co., Inc., 1935. Pp. xii+206. \$2.00.

contradictions in our economic life there is being forged a new definition of democracy," which he thinks will be approved by "capitalists who believe in or tolerate governmental control, evolutionary socialists, and other advocates of a planned economy." The *new* democracy "must minimize the individualism of our economic life . . . and maintain at the same time the rugged individualism in education which guarantees freedom to learn" (pp. 5-7).

It does Mr. Studebaker credit that he opposes those who think they can "envisage the kind of social-economic order America ought to have" and who "by the processes of indoctrination and propaganda, the first cousins of dictatorship, try to lead the nation" (p. 9) into the new system. He calls this method "faulty and undemocratic." On page 9 he says the schools should not "be made an agency of indoctrination," and on page 11 he refers to "the impoverishing atmosphere of propaganda." "Democracy," he says, "exists to nourish personality, not to consume it" (p. 13).

To find support for the forum as a means of educating adults in citizenship, the author cites Washington, Madison, and Wilson. He quotes what he calls a "trite" but "highly significant" statement from Mr. Coolidge. The ideas of Hoover and Smith are also given and are followed by quotations from such apostles of light as Walter Lippmann, George Soule, and Norman Angell. "What is most important," says Mr. Studebaker, "the men who now hold power in Washington are keenly aware of the danger of an ignorant electorate" (p. 36), and he gives citations from Ickes, Wallace, and President Roosevelt. He gives most space to his "fellow-townsmen," Secretary Wallace.

Chapters iv and v describe the Des Moines forums, the former under the mistaken title of "A Far-reaching Experiment." The author regards the essentials of the public forum as "(1) an assemblage of people, (2) a capable leader, (3) an important subject of current interest for discussion." He defines the objectives as "(1) exchange of information and point of view, (2) the development of tolerance" (p. 43). The *average* forum leader is paid \$5,800 for thirty-six weeks of service, with five meetings a week. The author considers that when "some bold souls . . . take issue with the forum leader . . . democracy is really at work in education" (p. 49).

The following questions and subjects are among those which have been discussed in the Des Moines forums.

Is prosperity a myth?
The economics of communism.
Public control of power.
Can the slums be abolished?
Germany's destiny.
The maximum loafing week.
Is President Roosevelt a dictator?
Why is the New Deal being attacked from the left?

Among the speakers have been Paul H. Douglas, Frank Bohn, Norman Angell, Branson de Cou (originator of "Dream Pictures"), Countess Tolstoy,

Hans Kohn, Luigi Villari, Louis Anspacher, Hubert C. Herring, Karl P. Polanyi, Pierre de Lanux, and Carroll H. Woody.

In chapter vi Mr. Studebaker advances reasons why he believes the federal government should provide financial support for public forums. His line of reasoning is that public forums promote civic education and that civic education is necessary to national security and national progress. The author admits that such forums might become centers for the spread of political and economic propaganda, particularly by the party in power, but he concludes that such dangers can be avoided.

In view of the evident sincerity of the author and his exalted position, the reviewer is hesitant about venturing any but the mildest criticism of the work. The reviewer agrees fully that immature children should be protected against the propagandist; he has only contempt for the bigoted and unreasoning extremists who would impose their violent and unseasoned ideas of social and economic reform upon the tender and trusting souls of nurslings, for those who disguise the Moscow nightmare as the American dream. In contrast, Mr. Studebaker is courageous enough to lead the issue before the public.

However, discussion can never properly resolve an issue. If democracy has nothing else in which to trust, it is already lost. "Group thinking," so called, is the veriest illusion. In the modern, scientific world the solution of a problem is a matter for the specialist, as is the diffusion of knowledge and its application. Discussion stirs up a great deal of froth, but it does not make butter. Systematic agitation, even under the control of the brightest of the New Dealers, will not take the place of the compass and the sextant in guiding the ship of state rightly.

The publication of the work is premature. Scientists fight shy of conclusions until *all* the evidence is in. The "experiment" still has three years to run. Conclusions made now may be vastly modified by later data. It is not the rule among scientists to rush into print until certainty has been reached. Why was not the publication of this work deferred until the end of the trial? Was it to promote, as Mr. Cartwright says, "national plans already advanced and in the making" (p. x)? No one can honestly contend that enough evidence has been collected from this test to justify a system of public forums throughout the country supported by the federal government.

The choice of terms is often inappropriate. Public forums are Greek and Roman in origin, and the panel discussions which characterize the Des Moines meetings were first extensively used as agencies to promote the Russian revolution and control by the Communist Party. When Roman forums and Russian panels are called "The American Way," one must inquire, "The way to what?"

Like many studies which have been financed in a similar way, no true *experiment* is involved. No connection with cause is established. No objective measurement of effects is attempted. No control has been set up. The continuance of the forums for twenty years would still leave one in doubt as to universal values. About all that can be said is that this study provides means by which the school board and the Carnegie Corporation may demonstrate that public

forums which take up controversial issues may be conducted in Des Moines for a limited number of the population. There are many better ways to spend \$125,000 in the interests of science and human welfare.

Many of the subjects were not well chosen; many contained a flavor of political and economic propaganda. How can one answer objectively the question, "Is President Roosevelt a dictator?" On what sources or facts would one rely to tell why the New Deal is being attacked from the left (assuming that it is)? Who knows the answer to the question, "Has the farmer been saved?" or can tell what is "Germany's destiny"? The presumption of some of the leaders is more astonishing than their conclusions.

The reviewer believes in the merit of adult education. He is in opposition, however, to Mr. Studebaker's proposal that a national program should be conducted at federal expense, nor does he feel that there is anything in the Des Moines demonstration which warrants this conclusion. Such a program on a national scale will inevitably become a program of the party in power. The final outcome will inevitably be what the outcome has already been in Italy and Russia—a dictatorship of one party. Would it not be becoming to postpone the instituting of a national program at least until after the next presidential election? Or is the desire to control the election through New Deal propaganda the very reason for the haste?

If it were not also presumptive, the reviewer would make a suggestion of two or three subjects for the Des Moines forums, for example: "Should public education or any form of chartered education be conducted at the expense of any educational foundation, such as the Carnegie Corporation?" Would it be appropriate to discuss in Iowa the wisdom of the slaughter of pigs and cattle, the plowing-under of wheat and cotton, and presidential petulance against the Supreme Court? Or would it be well to have some one of historical bent and training discuss Napoleon's retreat from Moscow with modern parallels?

JOHN C. ALMACK

STANFORD UNIVERSITY

Standardized tests and their uses.—It is unfortunate that Lincoln and Workman's book¹ places great emphasis on the importance and the use of standardized tests without emphasizing that the available standardized tests measure few of the outcomes of teaching. The reviewer is continually receiving requests for advice about standardized tests to measure the intangible objectives and is at a loss to suggest appropriate tests. If the chief concern is to have standardized measuring instruments, there are at hand weighing scales, the yardstick, or the dynamometer. These are well-standardized and accurate instruments. Educational measurement, however, is concerned not only with accurate and sensitive measuring instruments, important as these are, but primarily with the kinds of instruments to be used for collecting evidence about a variety of im-

¹ Edward A. Lincoln and Linwood L. Workman, *Testing and the Uses of Test Results*. New York: Macmillan Co., 1935. Pp. xii+318. \$2.00.

portant outcomes of instruction. Educators not only want to know how tall or how heavy a child is, or how much information he has acquired; they also want to know whether he is learning to think logically, whether he is getting along with his classmates, and whether he is beginning to like good literature. If the reader supplies this concept in reading this book, he will find the usefulness of the book increased. The authors remark that standardized tests, in their present stage of development, measure chiefly the more mechanical and objective subjects and phases of subjects and that satisfactory measures have not yet been devised for some of the more elusive and subtle, yet vitally important, phases of human traits and abilities. Although this statement is made in the chapter on the uses of standardized tests, the idea is not carried through the other chapters. In the chapter on the preparation of new-type testing materials, the authors speak of covering some portions of the course or the textbook and of the kinds of test devices to be used without reference to the kinds of behavior that are the objectives of the teaching. Likewise, the application of a broad concept of evaluation should be of much importance in the chapter on standardized tests in educational experimentation.

The chapter on drill tests and remedial work should bring out the point that remedial exercises should provide practice in the kind of behavior desired. They should not provide practice on the kind of exercises in the test unless one really wants the children to develop that kind of behavior. There is always a danger of practicing only for the sake of passing tests, which many times are short-cut devices designed only to collect evidence economically.

Useful information on standardized tests is given in the Appendix. One section of the Appendix is devoted to definitions and descriptions of about 240 technical terms in measurement and statistics. The section containing addresses of a great many publishers of tests constitutes a valuable source of information even though it contains several errors. Some elementary statistical measures and methods related to the construction of tests and the use of test results are discussed in one chapter and in the Appendix. A selected bibliography of approximately 140 tests is rather antiquated; no tests published later than 1932 are listed. The greatest number of the tests listed for any one year appeared as early as 1926. The authors, title of the test, publisher, purpose, nature of the test, range of grades for which it is suitable, time required for administration, and price are given for each test. This information is helpful to the teacher and the administrator. However, a clear description of the behavior of pupils in taking the test is not available. This question is the first one raised when examinations are selected.

F. P. FRUTCHY

OHIO STATE UNIVERSITY

The relation of the schools to the Boy Scout movement.—The question of character education has occupied a prominent position in the thinking of both professional educators and non-school groups in recent years. It is evident that other community agencies are involved as well as the school and that intelligent

consideration of the problem demands a study of the relations between the school and the other organizations. A recent volume² presents a careful and painstaking study of the association existing between the school and one of the most active of the supplementary educational agencies, the Boy Scouts of America. The problems Wyland sets out to consider are:

1. What is the basis of relationship between the Boy Scout movement and the schools?
2. What are the points of contact and kinds of co-operation and lack of contact and co-operation between the schools and the Boy Scout movement?
3. How do the records of scouts compare with the records of non-scouts in the same senior high schools?
4. On the basis of the findings of this study what constructive proposals may be offered for mutually helpful relations (co-operative or non-co-operative) between the schools and the Boy Scout movement? (P. 1.)

In developing principles to serve as a basis for the relation between scouting and the schools, the author depends chiefly on publications of the National Education Association, especially the Yearbooks of the Department of Superintendence, and on the official publications of the Boy Scouts of America. The accepted ideals of the school and of the Boy Scout organization, as revealed in these representative opinions, show a converging emphasis on education as an *active* process and on the importance of civic and character outcomes. There is evidenced a large area in which the aims of the school and of scouting overlap. It should probably be stressed that this point of view represents for the school a shift in orientation which is almost revolutionary. At the time the Boy Scouts of America was organized, the function of the school was generally accepted by laymen and school people alike as that of imparting information, and the types of information included were restricted to a narrow field.

On the basis of a nation-wide survey in which both Boy Scout executives and school administrators participated, the author presents evidence of a considerable degree of co-operation between scouting and schools at the present time. On the part of the schools this co-operation is manifested chiefly in a general willingness to make school buildings and grounds available to Boy Scout troops, in encouragement of Boy Scout enrolment among the pupils, and in the provision of volunteer and (in a small number of cases) paid service by school men to scouting. The chief types of assistance rendered to the schools by scout officials, as reported by school principals, are help in dealing with "problem boys," promoting civic service in school and community, and assistance in the observance of national holidays.

Reports from 1,252 principals (536 in elementary schools, 212 in junior high schools, and 504 in senior high schools) show that scouts *as such* perform services in the majority of the schools as messengers, traffic officers, library helpers, first-

² Ray O. Wyland, *Scouting in the Schools: A Study of the Relationships between the Schools and the Boy Scouts of America*. Teachers College Contributions to Education, No. 631. New York: Teachers College, Columbia University, 1934. Pp. viii+200, \$2.00.

aid assistants, etc. A sharp division of opinion as to the desirability of this procedure is reported. The position of the author seems sound:

No special groups with out-of-school affiliations should be favored by special privileges or penalized by assigning all the unpleasant tasks to them. If there are special skills acquired by scouts in the field of first aid and accident prevention or in handling crowds, where the uniform is an advantage, there seems to be good reason for assigning such duties to them [p. 85].

School men and Boy Scout officials agree that the relation of scouting and the school should be one of "co-operation without incorporation."

An interest in scouting on the part of colleges and universities is shown by the report of 198 institutions which give credit courses in scouting education and 184 which give non-credit courses in co-operation with local Boy Scout councils.

The author reports an extensive comparative study of pupils who had had scouting experience and those who had not in nineteen senior high schools. Of a total of more than twelve thousand pupils, slightly more than half were or had been scouts. Scouts were shown to be a selected group in intelligence, in socio-economic status, and in recognition for school offices and honors. In other words, the Boy Scout program at present is failing to reach a considerable proportion of those who, because of lack of privilege and lower intelligence, have a less favorable opportunity for developing desirable character traits. Wyland's carefully supported conclusion deserves the thoughtful attention of Boy Scout officials, school administrators, and all those interested in the character development of American boyhood: "The Boy Scout movement . . . has a moral obligation as a national agency to extend the benefits of its program to every American boy who wants to be a scout" (p. 144). In this endeavor it should attempt particularly to cater to the needs and the interests of the less privileged portion of the boy population, and co-operation of the schools should be forthcoming to assist in bringing about this result.

Wyland's study is to be commended both for its comprehensiveness and for its care in drawing conclusions from the statistical data presented. Previous studies have been carefully reviewed and the findings presented where these have important bearings on the various phases of the present investigation. It is to be hoped that this volume, as a thoroughgoing and authoritative study of the relation of schools and scouting, may find its way to the professional shelves of administrators and teachers in both elementary and secondary schools. It should be of distinct service in helping to a fuller realization of the possibilities for co-operation between schools and other character-forming agencies of the community.

EDGAR G. JOHNSTON

UNIVERSITY OF MICHIGAN

A pioneer reference book.—The children in elementary and junior high schools should use dictionaries. That they cannot use adult dictionaries is universally admitted yet the only substitutes have been adult dictionaries cut down, very

much as children's clothes used to be miniatures of those worn by their parents. (In too many cases even the size of the type has been reduced!)

Apparently, this situation was pressed on the attention of Professor E. L. Thorndike as he studied vocabulary and the psychology of reading. The result is *The Thorndike-Century Junior Dictionary*,² published early in 1935, in which a sincere and courageous attempt is made to solve the problem. Many—one is tempted to say *most*—of the dictionary conventions are thrown away, and the information which the editor thinks children need is given in the way that he thinks will be most convenient for them. Though some persons may criticize the execution, all must applaud the intent and the boldness of the enterprise.

Professor Thorndike and his assistants have done a thorough job of simplification:

1. The word list is cut down to 25,000. Nothing remarkable or even new in this, but the use of a scientifically compiled list of word frequencies as a guide to choice is a praiseworthy innovation.

2. The etymologies have all been left out, so that the definitions come immediately after the words. Only careful experiments could show whether the gain equals the loss.

3. The indication of the part or parts of speech for each word has been remanded to the end of the total group of definitions. *Light*, for example, is marked *n., adj., v.t., v.l.*—and to apply these various symbols to the successive definitions given taxes patience and intelligence too far. If pupils could make use of this information—it is badly placed. Plurals, comparisons, and principal parts are also relegated to the insignificant end position.

4. The same word is repeated for different meanings, with superior numerals to warn the pupil reading one of these that there are others. *Light*¹ is opposed to “dark,” *light*² is “not heavy,” and *light*³ means to “alight.”

5. Every word is pronounced in full—an easy and a real improvement.

6. There are no secondary accents. The theory probably is that American pupils will naturally supply the secondary stresses, and that marking them might lead to confusion. Experience will show whether this procedure is sound.

7. Finally, and chiefly, unusual meanings of these common words have been omitted, and scientific definition has been abandoned. In accord with the practice of good teachers these many years, explanation has frequently been substituted for definition, usually with illustrations; and sometimes, as in the case of *go*, illustrations only are offered. The ideal has been to make the meaning clear to the child reader by any verbal or graphic means available.

To find fault with these “definitions” would be easy. When *interfere* is defined as “clash” or “come into opposition to,” little help is given. Possibly some pupils would get from more formal definitions the ideal of defining nouns by nouns, adjectives by adjectives, and so on. But, whatever individual infelicities have crept into this attempt to recast the statements of the meanings

² E. L. Thorndike, *The Thorndike-Century Junior Dictionary*. Chicago: Scott, Foresman & Co., 1935. Pp. x+970. \$1.32.

of these thousands of words, the procedure is, on the whole, psychologically right.

The key to pronunciation, too, especially the short form at the bottom of each page, leaves something to be desired. *On* as an example of short *o* and *off* to show the broad sound are not happy choices.

Better children's dictionaries than Thorndike's will, we hope, be produced. Another large publisher is already announcing a rival, and there should be many. Meantime the present author and publisher deserve praise and patronage for producing a dictionary which is really for children.

W. WILBUR HATFIELD

CHICAGO NORMAL COLLEGE

Active, directed, purposeful study of literature.—The reviewer finds it difficult to indicate in a brief comment all the high values found in a recent series of anthologies for junior high school literature classes.¹ He therefore must be content to point out one outstanding feature and merely to mention several other excellencies of the series.

The teaching materials are organized to facilitate the progress of classes through a series of progressively developed "units" in keeping with practices now almost universal in modern curriculums. Moreover, the units as conceived and executed in *Hidden Treasures* have one feature which is distinctly unique and challenging. Retaining as major units the forms of literature—short stories, poetry, essays and biography, one-act plays, novels—the authors subdivide the literary contents of each of the headings under definite "Reading Purposes," thirty-one such "Purposes" being included in Book I. For example, in Unit Two of the seventh-grade book, "Reading Poetry," a large variety of poems are listed under eleven "Purposes": "To Increase My Pleasure in Observing Nature," "To Enjoy Poetic Comparisons," "To Appreciate Interesting Variations of Rhythm," "To Share the Poet's Mood in Describing Common Emotions," and seven other purposes. All the purposes are designed to challenge the children's attention to the ways in which to read poetry. This organization of primary units by literary types and secondary subunits by reading purposes is continued throughout the three volumes.

Immediately one who examines the books realizes that the authors believe sincerely that literature is to be studied as literature; they characterize their program as the "active, directed, concretely purposeful study of literature" (p. iv). In short, they design their product for teachers who agree that literature is one of the arts, with a special sphere of influence, an area of study of its own. By no means do they reject the truth that literature impinges on other ways of looking at life—the social way, the historical way, even the science way. However, they are apparently skeptical of associating literature as such directly

¹ Luella B. Cook, George W. Norvell, and William A. McCall, *Hidden Treasures in Literature*: Book I, pp. xx+580, \$1.48; Book II, pp. xx+666, \$1.56; Book III, pp. xx+746, \$1.72. New York: Harcourt, Brace & Co., 1934.

with content subjects like the social studies. These writers want pupils in literature classes to learn to read literature; to this primary objective they at least subordinate all other outcomes. In this view they agree, probably, with the vast majority of English specialists who are not in sympathy with the movement to integrate literature intimately with other studies.

A minority of English teachers believe that the senior high school years may suffice to teach literature primarily as literature, by types or by literary periods, and that the junior high school years may profitably experiment with literature on its functional basis—if nothing else to guide pupils through a variety of patterns of experience with good literature. Even those who hold that functional values of literature may be stressed in the lower secondary school and intrinsic literary values in the upper can see many highly commendable features in the *Hidden Treasures* series. Having pupils read selections with a purpose; opening up to teachers and pupils alike a large variety of purposes; challenging pupils to discover their own purposes; suggesting a rich variety of supplementary reading problems and projects; weaving very specific threads of silent-reading techniques progressively through the basal books and developing such threads extensively in an accompanying series of three workbooks, called *Experiments in Reading*; tying up reading techniques with the primary junior high school problem—teaching pupils to study; making appropriate and extremely attractive suggestions for oral and written expression, usually as the results of individualized reading experiences; using delightful original essays to preface each subdivision of the units; withal presenting selections carefully chosen after extended experimentation for their suitability for junior high school children; and embodying this whole attractive program in beautifully bound, printed, and illustrated volumes—these and other features make *Hidden Treasures in Literature* an outstanding series of books. The authors and publishers deserve hearty commendation.

R. L. LYMAN

Elementary science with art, word, and study appeal.—From the standpoint of well-chosen study experiences in the field of science, adjusted vocabulary, and beautiful engravings of highly valid form and color, there are few books for very young readers as thoughtfully prepared as *Science Stories*.² These books treat of seasons, weather, plants, animals, fire, electricity, toys, machines, land, water, sun, moon, and stars as they commonly fall within the experience of children who are beginning to read for themselves. The authors have consciously reduced reading difficulties to the minimum in order that the pupils may be free to give much attention to the real purpose of the books, namely, learning to observe carefully and to interpret the environment.

² Wilbur L. Beauchamp, Gertrude Crampton, Harriet M. Fogg, and William S. Gray, *Science Stories*: Book I, pp. 144, \$0.60; Book II, pp. 176, \$0.68. Chicago: Scott, Foresman & Co.

Teachers who are interested in the art of teaching elementary science will discover here what they often search for and fail to find: some of the results of the best theories presented in a form ready to put into practice.

R. R. SPAFFORD

AUSTIN PEAY NORMAL SCHOOL
CLARKSVILLE, TENNESSEE

New approaches in music instruction.—Not many years ago music education for children usually meant singing simple songs or exercises with sol-fa syllables in the schoolroom or taking piano lessons outside. Recently, however, the term has taken on wider significance and includes appreciation, knowledge about composers and their compositions, skill in performing instrumental and vocal music, and creative activities. It is in this last field that the book under consideration¹ largely falls. Yet the author has not limited it solely to this phase of instruction, for history, appreciation, and performance likewise receive attention. According to the Preface, the book is the first of a series to teach young or inexperienced pupils something about instruments. Because of its construction and tonal qualities, Dushkin wisely saw fit to begin with the flute.

The book is divided into three sections. The first of these is devoted to an account of the development of the flute throughout the ages. The early attempts of primitive peoples to make this instrument, man's efforts to improve it as time went on, the flute used by the ancient Egyptians and Greeks, its place in Roman life, the kind used in oriental countries, that employed in England during the Elizabethan period, and finally the improvements made by Böhm, and the flute appearing in the modern orchestra are described briefly, simply, and effectively. Detailed directions for making a flute constitute the second chapter. Construction requires a well-equipped tool chest and some familiarity with shop technique. The third, and last, chapter includes four rules on how to hold and blow the flute, a fingering chart, and music to play. The melodies range from well-known folk tunes of different countries to themes from standard symphonies. Some are written for flute alone, a few are arranged for flutes together in duet form, and several provide piano accompaniment. The flute part is printed in green ink to distinguish it from other parts and to simplify reading.

The plan or method, original and educationally sound, has been successfully tried with children and has received indorsement from educators and musicians. It should bear out the author's belief that it will solve the musical problem of many young Americans who may not have talent, time, or money necessary to learn to play difficult instruments, such as, for example, the violin or the cello. The difficulty in using the method with groups of children in the public schools lies in the limited amount of time usually available for music instruction, lack of equipment, and the fact that many teachers do not have the skill needed

¹ David Dushkin, *Fun with Flutes*. Chicago: University of Chicago Press, 1934. Pp. 28. \$1.50.

to manipulate tools. Whether or not instruments are built in a school, this small volume should find a place in the music library because it contains good historical and appreciational information and music of excellent quality that should interest both young and old.

The appropriate illustrations, clear print, gray binding with black-and-green design make this book unusually attractive in appearance. Size and shape are convenient for use on music racks and deserve favorable comment. Unfortunately, a table of contents and an index are lacking.

ANNE E. PIERCE

UNIVERSITY OF IOWA

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GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

- ALEXANDER, CARTER. *How To Locate Educational Information and Data: A Text and Reference Book*, pp. xxvi+272; *Alexander Library Exercises*, pp. 102. New York: Teachers College, Columbia University, 1935.
- BRANDT, FRANCIS BURKE. *Advanced Thinking in American Education, 1895-1920: Educational Papers, Addresses, Reviews; Documents, Letters, and a Syllabus for a Science of Education*. Camden, New Jersey: Haddon Craftsmen, Inc., 1935. Pp. x+270. \$3.00.
- The Conduct of the Schools of Jean-Baptiste de la Salle*. Translation and Introduction by F. de la Fontainerie. New York: McGraw-Hill Book Co., Inc., 1935. Pp. xiv+242. \$1.50.
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- REINHARDT, EMMA, and BEU, FRANK A. *An Introduction to Education*. Boston: Christopher Publishing House, 1935. Pp. xxx+476. \$3.00.
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- FINDLEY, W. C., STUDEBAKER, J. W., and KNIGHT, F. B. *Number Stories Workbook*, Book I. Chicago: Scott, Foresman & Co., 1935. Pp. 64. \$0.24.
- HALL, NORMAN H. *Beginners' Number Reader and Workbook*: Designed To Supplement and Correlate with the Required Oral Number Work for First Grade. Chicago: Hall & McCreary Co., 1935. Pp. 94. \$0.28.
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AND OTHER MATERIAL IN PAMPHLET FORM

- Annual Report of the Board of Regents of the Smithsonian Institution for the Year Ending June 30, 1934*. Washington: Government Printing Office, 1935. Pp. xiv+448.
- Better Citizenship*: Report of the Conference Held at Connecticut College May 16-17, 1935, on the Education of Women for Public Affairs. New London, Connecticut: Connecticut College Bookshop, 1935. Pp. 94. \$0.50.

Christian General Education: A Curriculum Study. The Report of a Committee Representing Midwestern Lutheran Colleges. Studies in Lutheran Higher Education, Vol. I, No. 2. Minneapolis, Minnesota: Augsburg Publishing House, 1935. Pp. 88.

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Bulletin No. 1, 1936—*Educational Directory, 1936:* Part II, City School Officers, pp. 28; Part IV, Educational Associations and Directories, pp. 64.

Civilian Conservation Corps Vocational Series—Outlines of Instruction for Educational Advisers and Instructors in Civilian Conservation Corps Camps: No. 4, *Carpentry*, pp. xii+72; No. 5, *Concrete Construction*, pp. x+88; No. 6, *Cooking*, pp. xii+66; No. 7, *Conservation of Natural Resources*, pp. xii+94; No. 9, *House Wiring*, pp. xii+58; No. 10, *Elementary Masonry and Bricklaying*, pp. x+62; No. 11, *Mechanical Drawing*, pp. xii+72; No. 12, *Photography*, pp. xii+72; No. 13, *Radio Servicing*, pp. xii+66; No. 15, *Plane Surveying*, pp. x+60.

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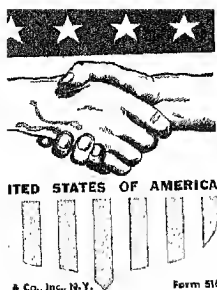
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Educational News and Editorial Comment

CONFLICTING TAXATION AND APPROACHES TO ITS SOLUTION

Like many other existing institutions, our system of taxation was developed to meet the needs of a simple agrarian society. Until comparatively recent years the federal government secured the major portion of its revenues from custom duties and certain excise taxes, while state and local governments relied chiefly on revenues derived from the taxation of real and personal property. During the past two decades, however, these old sources of revenue have proved inadequate to support a rapidly expanding public service. They simply would not yield the funds necessary to maintain schools and libraries, to build roads, to extend the health service, and to support many other functions which government seemed unable to escape. There was no way out but to extend the tax base. Faced with the necessity of balancing budgets that were constantly expanding, governments at all levels—federal, state, and local—have sought to tap new sources of revenue. Difficulties of administration have forced local governments to continue to rely chiefly on the property tax, but the federal government and the governments of the several states have found it possible to tap sources of revenue that run into

the hundreds. In expanding the base, however, the federal government and the various state governments have gone their respective ways, each adopting such fiscal policies as promised the most revenue regardless of what the other was doing. This individualism in fiscal affairs has resulted in tax conflicts which, without doubt, constitute one of the major problems of our time.

In its recently published report *Conflicting Taxation*, the Interstate Commission on Conflicting Taxation analyzes the problem of fiscal disorganization in the United States and considers certain approaches to the solution of tax conflicts. The following paragraphs are quoted from the report.

The extent and seriousness of the tax conflicts which characterize the present fiscal relationships of the federal government and the states have been set forth in detail in the admirable preliminary report of the Ways and Means Committee's subcommittee on conflicting taxation. According to this report, there were in 1931 no less than 323 cases of dual impositions upon the same tax base by both federal and state governments. Two years later a less careful count indicated the number had risen to more than eight hundred.

Many of the taxes subject to federal-state duplication are comparatively unimportant from the standpoint of revenue yield. However, at least seven of these taxes are relied upon heavily by both the federal government and the states. They are (1) the personal-income tax, (2) the corporation-income tax, (3) inheritance and estate taxes, (4) taxes on admissions to places of amusement, (5) the tobacco tax, (6) alcoholic-beverage taxes, and (7) the gasoline tax. Also, general sales taxes, imposed only by state authority, are subject to so many administrative difficulties as to precipitate major interstate problems. The amounts of revenue obtained by both the federal government and the states from the above-mentioned taxes are set forth in [the accompanying] table.

The federal government suffers comparatively less from the present lack of orderliness in intergovernmental fiscal relations than do the states and their subordinate political units since it occupies a relatively strong position compared with that of the states in any conflict of tax policies. However, even the federal government has much to gain from the establishment of more orderly arrangements.

Although the federal government has a vital interest in conserving the yield of the tax sources which it utilizes in common with the states and their subdivisions, at the present time there is no protection against the wasteful utilization of these common sources. In the first place, under the existing régime of unregulated fiscal freedom, the states and their subdivisions are at liberty to seize upon types of taxes which they are not as well fitted to administer as is the federal government. The resulting loss through high administrative costs, boot-

legging, and other forms of tax evasion represents a dissipation of taxable resources which the federal government cannot afford to ignore.

In the second place, in the case of many taxes there is a point beyond which the rate cannot be raised without diminishing the yield. It is to the interest of the federal government no less than to that of the states to protect revenues from uneconomical diminution. But under the present system of independent

STATISTICAL SUMMARY OF DUPLICATING TAX LEVIES BY THE
FEDERAL GOVERNMENT AND THE STATES, FISCAL YEAR 1934
(ooo Omitted)

	FEDERAL TAX COLLECTIONS *	STATE TAX COLLECTIONS †		TOTAL COLLECTIONS	
		Number Im- posing Tax			Revenue
		August 1935	Fiscal Year 1934		
Income, individual . . .	\$ 419,509	33	28	\$ 85,892 †	\$ 505,401
Income, corporation . .	397,516	32	29	51,225 ‡	448,741
Estate and inheritance .	103,985	47	47	92,786	196,771
General sales tax	390,938 ||	24	18	201,290	591,328
Tobacco tax	425,169	19	15	23,755	448,924
Gasoline tax	202,575	48	48	561,272	763,847
Admissions tax	14,613	34	34	6,243 ¶	20,856
Alcoholic-beverage tax .	258,911	47 **	44	79,906 ††	338,817
Total	\$2,212,316			\$1,102,369	\$3,314,685

* United States Bureau of Internal Revenue, *Internal Revenue Collections* (preliminary statement, July, 1934).

† Figures from state publications and state officials.

‡ Revenue for twenty-six states; two additional states, Iowa and Louisiana, have new laws.

§ Revenue for twenty-five states; two additional states, Iowa and Louisiana, have new laws. New Hampshire and Ohio collections are included under personal-income tax revenues.

¶ Total manufacturers' excise taxes exclusive of those on liquor and tobacco.

¶ Revenue for twenty-nine states.

** In forty states liquor is legal.

†† Revenue for forty-one states.

and competitive utilization of the same types of taxes by both the federal government and the states, there is no possibility of exercising any effective control over the burden of taxation on bases which are shared in common. There is, accordingly, an ever-present danger that the total rates of federal and state taxation in respect to certain taxes will be pushed beyond the point of maximum return.

Adequate support of the functions for which state governments are responsible is being seriously jeopardized by the fact that federal fiscal programs are devised with little regard for their effect on the finances of the states. Except for

the property tax, on the one hand, and import duties, on the other, both the federal government and the states rely largely upon the same types of taxes. As was mentioned above, in any conflict which may arise over the utilization of these common revenue sources, the federal government, as a general rule, occupies the superior tactical position. Its jurisdiction covers the entire country; it is not inhibited from taxing interstate commerce; it is able to impose its taxes at the most strategic points in the productive and distributive process. As a result of this situation the states are placed in the position of having to take what the federal government leaves. State and local finances are made subordinate to the exigencies of federal finance, although the states and their subdivisions still carry on the bulk of the peace-time activities of government.

It is becoming increasingly difficult for state governments to draw up a budget and to determine upon a program of taxation until they know what the federal government will do. Moreover, the carefully worked out budgetary calculations of the states may be upset by emergency changes in the federal taxing program. This condition discourages sound financial practices and leads to deficits.

But if the states suffer from the fiscal individualism of the federal government, they suffer also from their own individualism in their relations with each other. Each state reaches out to tax as much as it legally can regardless of the fact that what is legally permissible may in practical effect be equivalent to extra-territorial taxation. Thus New York State imposes a tax on stock transfers and, since it contains the country's leading exchange, it is enabled to exact a contribution from the nation as a whole. . . .

Whether innocent or predatory, interstate competition has a harmful effect on state finances. A state which ventures to depart too widely from the general pattern of taxation set by its neighbors invites wholesale tax avoidance and evasion and runs the risk of seeing valuable taxable assets drained away. This in large part explains why the states and their subdivisions have made so little progress away from the general property tax. Most subjects of taxation other than real estate possess some degree of mobility; and, until a limit is placed on interstate tax competition, a few recalcitrant or self-seeking states will be able to impede the progress of needed tax reforms.

Probably the chief victims of the extreme fiscal separatism at present prevailing in the United States are the municipalities and other local government units. As creatures of the states, municipalities are limited to such revenue sources as the states prescribe for them. Their only considerable revenue source is the general property tax, which falls in the main on real estate. Municipal services have expanded in scope, and the cost of supplying them has increased greatly. In default of other means of financing, these added costs have for the most part been piled indiscriminately upon the owners of property. . . .

The maladjustments which have been shown to be inherent in our present régime of fiscal individualism react with injustice on the taxpayer. The lack of a uniform and adequate code of fair practices in the field of interstate fiscal rela-

tions permits multiple and extra-territorial taxation of an inequitable nature. As a result, certain taxpayers are called upon to pay for services rendered in other jurisdictions toward which they cannot in justice be asked to contribute. . . .

But the fiscal individualism which dominates intergovernmental relations in the United States probably works its greatest injury to the taxpayer in making it impossible to distribute the total burden of taxation—federal, state, and local—in accordance with any recognized principles of fairness. In fact, under present conditions the distribution of the combined burden of federal, state, and local taxation is subject to no rational control at all. . . .

Out of this situation arise five specific evils which may be summarized briefly as follows: (a) tax competition between the federal government and the states which makes it difficult for the states to raise needed revenues or to adopt new financial programs until they know what the federal government will do; (b) interstate tax competition which makes it difficult for a single state to adopt certain new forms of taxation or, in the case of already existing levies, to impose socially desirable rates unless competing states take similar action; (c) overlapping and conflicting state claims to taxing jurisdictions which result in double taxation of an inequitable nature; (d) the avoidance of certain types of state taxation, such as sales taxes, under the protection of the interstate-commerce clause; and (e) uneconomic division of tax-administering functions, which results in excessive costs, bootlegging, and evasion.

Many plans have been proposed for bringing a measure of order into the present chaos of federal-state fiscal relations. The report groups the proposals which have been urged most vigorously under the following heads.

1. *Centralization.*—Federal administration of taxes subject to uneconomic administrative duplication coupled with (a) federal grants-in-aid, (b) national administration with state sharing, (c) state additions or supplements to nationally administered taxes.

2. *Federal credits.*—When both the federal government and the states impose similar taxes, amounts paid under the state tax to be allowed as an offset against the taxpayer's liability under the federal tax up to specified percentage of the federal tax.

3. *Segregation.*—Complete or partial division of the tax field through the assignment of certain types of taxes exclusively to the federal government and of certain other types of taxes exclusively to the states.

4. *Intergovernmental comity.*—Made effective through (a) interstate reciprocity and retaliation, (b) promotion of uniform state laws and administrative methods, (c) interstate agreements and compacts.

The report examines each of these proposals critically in the light of existing evidence. In evaluating proposed solutions, the commis-

sion presents a mass of statistical data showing past yields of the various taxes and possible yields if certain policies were adopted.

IS THE COUNTY AN ANTIQUATED UNIT FOR SCHOOL ADMINISTRATION?

Proposals to make the county the local unit of school administration are frequently met with the statements that the county is the "dark continent" of local government, a product of the horse-and-buggy age, and that it would be a mistake for school administrators to adopt an administrative unit which is long since an anachronism. No doubt economy and efficiency in county administration can and will, in time, be accomplished. It is often assumed that county consolidation is a means to this end, and the consolidation of certain counties in Tennessee and Georgia is pointed to as an illustration of what may be expected on a large scale. As yet, however, the consolidation movement has made slight progress. Moreover, there is evidence to indicate that the economies resulting from consolidation are not so great as might be expected from purely theoretical considerations. There are doubtless a great many instances in which consolidation of counties would result in substantial economies, but it seems equally clear that in other instances there would be no economies at all. In all probability, economies in county administration will result, in large measure, from the transfer of certain functions, such as the maintenance of roads, from the county to the state; from the adoption of more efficient forms of county administration, such as the county-manager plan; and from the consolidation of governmental functions within the county. At any rate, the evidence does not warrant the conclusion that the county is an outmoded unit for local school administration. Whatever reforms may take place in county government, the county as a unit of local administration is likely to exist for a long time to come.

Edward B. Schmidt, in a monograph entitled *County Consolidation* (University of Nebraska Studies in Business, Number 36), makes an analysis of the expenditures of seventeen counties in Nebraska with the view of determining economies that might result from county consolidation. We quote some of the more important conclusions of the study.

At the beginning of this study it was suggested that only through determining the nature of the effects of area, population, and wealth upon county expenditures is it possible to predict what the effects of county consolidation would be upon the cost of county government. It has been the purpose of this study to show how the various county costs are influenced by these factors. Let us summarize, briefly, the principal conclusions.

Area is the dominant factor in determining the cost of road and bridge construction and maintenance because of the relationship existing between the area of a county and its road mileage. Area is also important in determining the cost of maintaining a county board because of the rural nature of their work. Neither of these costs, it was found, can be appreciably economized by enlarging the area of the county. In other words, so long as the county boards retain their present functions and their present importance, the cost of road and bridge construction and maintenance, as well as the cost of maintaining county boards, will remain about the same for the state as a whole regardless of the number of counties. It was pointed out in chapter iii that these expenditures are very important, making up usually from one-half to three-fourths of a county's total expenditures.

Population . . . is the dominant factor in determining practically all of the rest of the costs of county government. The distribution of population between urban and rural communities, or between large and small cities, is unimportant so far as officers' salaries and the cost of office operation are concerned, but it is of great importance in determining the expenses of the county superintendent, the sheriff, and the costs of administering justice. Among the counties whose population is less than thirty thousand, yet of sufficient number to assure a full utilization of equipment and personnel, the possibilities of economizing the costs which are determined by population are not very great. It would not cost the people of the state as a whole much more to administer county government through 138 counties of 10,000 people each than it would through 45 counties of 30,000 each, except for the cost of maintaining and operating the additional number of courthouses which would be partially offset by less indirect costs due to smaller areas. . . . The total costs which are determined by population constitute from one-fourth to one-third of the county's total expenditures.

The cost of construction, maintenance, and operation of county buildings is only roughly related to the population of a county. Every county must have a courthouse, but a building of a given size will serve the needs of counties varying greatly in population. These costs could be materially reduced by county consolidation, the amount of the reduction in each case depending largely upon the terms of disposition of their present buildings by the merging counties. The total cost of maintaining and operating a county courthouse is not very great. . . .

The costs of county government are only partly represented by the revenues received by the county. Another important cost is the expense imposed upon the citizen who is obliged to go to the county seat. This latter cost is not paid to the county and is not evenly distributed among the taxpayers of the county, but is a

real cost nevertheless. It varies greatly from person to person, depending upon the number of times it is necessary to go to the courthouse and the distance which must be traveled. These indirect costs are affected whenever the area of a county is changed.

Wealth is not an important factor in determining any of the costs of county government. It derives its importance only from the fact that it helps to determine the scope of a county's governmental activities. Because wealth is not evenly distributed among individuals and communities, some localities must be content with fewer governmental services than others. But so far as most governmental activities are concerned, when once it has been decided to have the county render a particular service of a given standard, the wealth of the county has nothing to do with what it will cost to secure this service.

The results of this study only partially agree with the results of studies that have been carried on elsewhere. While others have found county consolidation a means toward lower governmental costs for counties of any size, this study indicates that in Nebraska substantial economies probably could be achieved only among the more sparsely populated counties. The lack of agreement in results is due partly to a difference in the method pursued in the study and also to the lack of similarity in the communities involved. . . .

There is a difference between equalizing the costs of government and reducing them. . . . In Nebraska almost any merger might result in a redistribution of the costs of county government but, if our conclusions are sound, there are only a limited number in which consolidation would appreciably reduce the costs of county government. Although our study does not include Lancaster and Douglas counties, presumably the administrative costs of any county merging with either of these would be reduced. It is also quite evident that the consolidation of any two or more of the very sparsely settled counties, either with others of the same kind or with a more populous neighbor, would reduce the administrative costs. But for probably two-thirds of Nebraska's counties, the costs after consolidation would not be appreciably lower than before. . . .

There is little of encouragement in a study of county costs in Nebraska for those who would promise lower governmental costs as a reward for consolidation in order to accomplish either improvement in the services of government or a redistribution of governmental costs. Except in the cases already mentioned, the indications are that a redistribution of costs would mean a heavier burden to some and a lighter one to others. And, so far as efficiency may be judged by cost, there is little in this study to indicate that the more populous counties are more efficient than the less populous ones.

YALE'S DEPARTURE FROM THE TRADITIONAL TYPE OF GRADUATE WORK

In the September, 1935, issue of the *Elementary School Journal*, we called attention to the phenomenal expansion of graduate study in this country during the past few decades and to the increasingly

diverse interests and needs of graduate students. It seems obvious that graduate schools in the United States will soon find it necessary to reorganize their curriculums in such a way as to care for the growing number of students whose interests are other than those of research. In this connection it is interesting to note that Yale University has recently initiated a departure from the traditional type of graduate work. The Graduate School at Yale has established what is known as the Division of General Studies in order to meet better the needs of those who do not wish to work for a Doctor's degree but who wish to pursue a broad program in a scholarly way. The following quotation from the *Yale Alumni Weekly* indicates the general purpose of this new venture in graduate study.

In establishing a Division of General Studies in the Graduate School, the University has taken a pioneering step in the field of advanced education. The new division has no prescribed course of study, but it will draw upon all the resources of the University in adjusting each student's work to his peculiar needs and interests.

Graduate work in American universities has grown progressively more specialized over the past twenty-five years. Advanced study has become directed almost exclusively toward the production of investigators. Individuals desiring to extend their education beyond the undergraduate stage have found themselves excluded from the universities unless they were willing to enter upon the specialized courses leading to the Ph.D. degree.

Students applying for admission to the Division of General Studies at Yale must give evidence of superior intellectual ability and of a definite purpose. But once these requirements are met, there are no limits to the breadth of the program that may be pursued. It is simply required that the student's courses have an intelligent bearing upon the career toward which he is aiming. Thus the advanced work of the University will be made available to college and secondary-school teachers, to librarians, museum docents, community leaders, and to persons preparing for journalism, politics, or business. In short, it is the belief of those connected with this innovation that the Graduate School has large possibilities for educational service which have hitherto been overlooked but which will be met by this radical liberalization of advanced study.

One of the large educational fields which has thus far been untouched by the influence of the graduate schools of the great universities is that of adult education. A very large number of educators are carrying on their work in public libraries, public museums, and in other institutions where broad rather than specialized scholarship is required. The docent in the museum of natural history, for example, can be of little service to his public unless he has the broad training which in the old days was associated with the naturalist.

In recent years there has been no provision for broad training of this sort in

the universities. Consequently, men carrying on education in our natural parks and public natural-history museums have had to fall back upon self-education. A man was welcome to the Graduate School to study zoölogy exclusively, botany exclusively, or geology exclusively, but it was assumed that no one but a dilettante would wish to push forward his knowledge in all of these fields.

One of the most interesting recent developments in the public-library field has brought forth the *reader's counselor*, whose professional duties call upon him to advise the public as to books and reading programs in a wide range of subjects. The engineer may drop in at his public library and say that he wants to begin the study of economics, or a lawyer may ask to be started on the study of the geology of his own community. Obviously the reader's counselor is insufficiently equipped by an undergraduate education, and his important rôle in the community places a definite obligation upon the universities.

Finally, we may cite the case of the young college graduate who discovers in Senior year that he desires more knowledge of economics, politics, and American history, or in some other combination of studies related to a future career in journalism, politics, or business. Under the new plan the University will welcome the continuance of his studies by such a man even though he has no thought of becoming a candidate for the Ph.D. degree, and of undergoing the highly specialized training required to produce a professional investigator.

During recent years many of the colleges and secondary schools have become dissatisfied with the specialized equipment of teachers sent to them from the great graduate schools. The college or secondary-school teacher may find it far more important to be prepared in some combination of subjects, such as history and literature, physics and chemistry, or psychology and sociology, than in the research methods of any single subject. In the Division of General Studies men will be encouraged to go forward with just such broad programs.

Students carrying on programs of study sponsored by the Committee on General Studies may become candidates for the Master's degree. They need not be candidates for any degree. Up to this time, only candidates for degrees have been admitted to the Graduate School. The Ph.D. is to remain a distinctly research degree.

THE EDUCATIONAL PLEDGES OF THE NEW GOVERNMENT IN ENGLAND

In a speech made during the recent campaign in England, Prime Minister Stanley Baldwin, reports the *London Times Educational Supplement*, made the following statement with respect to education and the social services.

I have urged on many audiences for many years past the responsibility of a citizen in a democratic country and the training he needs to exercise his free choice, and we think the time has come to make a forward movement in education. You will think naturally of the elementary schools first, and the school-

leaving age. I think no one would dispute that the extra year is a desirable improvement, but there are obviously two points on which we all need to be satisfied. The first is that the schools, including the voluntary schools, are ready and properly organized to take the additional number of children. Otherwise the advantages will be thrown away. The second is that the system shall not be too rigid or too flexible to meet the variation of calling and occupation and conditions of employment in this country.

The Government have put their hand to this work, and can now announce their intention of bringing in legislation to raise the age to fifteen, with exemptions for those in beneficial employment and in special cases for home duties. Going on farther we shall extend the opportunities for secondary school, for university education, and for education in technical schools. It is a carefully considered program to widen the educational ladder and to secure for everyone the fullest opportunity. There is nothing comparable to this service in the world in meeting human needs and the variety of human circumstance.

Let me just warn you of one other little inaccuracy I wish to deal with. I might have made a speech composed of them. It has been said during this election that the Government have starved the social services. So many of them are our own children we are not likely to starve them, but as a matter of fact, and notwithstanding that we have reduced the number on the unemployed register below the average of 1930, we are paying this year without any borrowing roughly £16,000,000 more for social services than the Labor Government did in 1930.

In view of the widespread interest in England in the improvement of educational facilities for children between the ages of eleven and fifteen, the pledges of the new government are very likely to be carried into effect. For many years the government has been seeking to carry out the provisions of the Hadow report, one of the most important of which was the recommendation that the school-leaving age be raised to fourteen and that children between the ages of eleven and fourteen be provided free, compulsory education in new types of junior secondary schools. With respect to the present government's campaign pledges, the *London Times Educational Supplement* makes the following editorial comment.

Little time is likely to be lost by the new Government in giving effect to their election pledges in regard to education. All parties are anxious to see the introduction of an education bill which will enable schools, both council and non-provided, to pull their full weight in the completion of the Hadow scheme. There has been general acceptance of the proposal to make temporary building grants to voluntary schools, and no discordant note is likely to be heard when these clauses are under consideration. The problem which will rouse a good deal

of concern is the method of raising the school-leaving age. All sections of opinion are agreed on the desirability of another year at school for most children, but there is a good deal of divergence of view as to how it is to be brought about.

HERE AND THERE AMONG THE SCHOOLS

The promotion of professional growth in Peoria public schools.—Superintendent E. C. Fisher, of Peoria, Illinois, has initiated a program to stimulate professional growth on the part of teachers in the Peoria school system. Every teacher in the system is assigned to a committee which undertakes the study of some significant educational problem. For example, the committee on social science is actively engaged in securing reading materials which will contribute to a more effective instructional program. All principals and supervisors are members of a "round-table group" which meets monthly throughout the year. During the current year this group is re-studying educational psychology. The topics of professional study at one of the schools are as follows: September, pictorial and graphic aids; October, object materials; November, excursions and field trips; December, slides, still films, and opaque projections; January, silent and sound motion pictures; February, collateral reading; March, the unit of study; April, outlining and summarizing; May, summary of research; June, sources of aids.

A description of the organization and operation of a city's school libraries.—The Board of Education of San Antonio, Texas, has published in mimeographed form a pamphlet bearing the title "Library Procedures." The pamphlet is divided into four sections: "Securing Books," "Physical Space," "Functions of the School Library," and "Personnel." The data are so organized that a clear picture is given, for schools of all levels, of how books are secured, of the physical space provided for the libraries, of the functional use of the school libraries, and of the organization and duties of the library personnel.

Correlated handwork for the primary grades.—Teachers of the first three grades who undertake to correlate the out-of-school experiences of pupils with the activities of the classroom will be interested in a bulletin published by the Board of Education of Chicago bearing the title *Correlated Handwork: Grades 1-2-3*. The bulletin contains detailed suggestions with respect to many kinds of projects and activities. The suggested activities of Grade I center largely in the

construction of a house and the construction of a room grocery; the two major projects of Grade II are the construction of a farm and the building of a park; the activities of Grade III have to do, in the main, with Chinese life and the organization of a health club. In addition to these major centers of interest, suggestions are made for a number of individual and class projects in each grade.

A school newspaper devoted to library news.—The "David Lubin Library News" is the title of a newspaper issued by the pupils of the David Lubin School, Sacramento, California. So far as we are aware, this is the first elementary-school newspaper dealing exclusively with items of library interest. The numbers of the paper issued to date are interestingly written and contain a wide variety of information about books and authors which should prove stimulating to children. The board of editors is changed each month so that every pupil may have an opportunity to participate in the venture.

A bulletin on the marking of spelling.—The Elementary School Principals' Spelling Committee of Minneapolis has published a bulletin entitled "How To Mark Children in Spelling." The following paragraphs describing the conclusions of the committee are quoted from a recent issue of the *School Bulletin* issued by the Minneapolis Public Schools.

The attitude of the committee is expressed in the statement that the "important consideration in marking pupils in spelling is whether or not the individual pupil is showing progress in spelling in relation to his ability and not in relation to a uniform measure standard." They suggest that, inasmuch as the value of spelling lies in its use in written expression, marks in spelling should not be based entirely on ability to write lists of words correctly. This traditional type of test is valuable, but in addition the pupil's ability in contextual spelling and his accuracy in spelling in other school writing activities should be considered.

The bulletin suggests that pupils keep three records of their spelling: (1) a record of their scores on list spelling tests; (2) a record of their scores on contextual spelling tests (the writing of paragraphs which has interwoven into it the words included in spelling drills); and (3) a record of the words misspelled in other activities, such as letter-writing, writing of notes, and creative work. It is suggested that the teacher study each pupil's spelling record as recorded in these three ways and ask herself, "What progress has he made in relation to his standing at the beginning of the semester? In relation to his standing of each succeeding week? In relation to his capacity to improve?" If no improvement is shown in the three sources, the spelling rating must be "unsatisfactory." If there is improvement but weakness persists, the rating may be "improving." If general

strength is maintained in relation to these three sources, the spelling rating should be "satisfactory." The important consideration is whether or not the individual pupil is showing progress in spelling in relation to his ability and not in relation to a uniform measure or standard.

Acquainting the public with the work and needs of the schools in Kansas City.—The public schools of Kansas City, Missouri, are giving a radio program each week. One feature of these programs is a six-minute address by some staff member or school official, the purpose of which is to inform the public with respect to the work and needs of the schools. A second feature is a program of music or public speaking by public-school pupils. These programs are prepared by the pupils in the course of their regular school work and should therefore give the public a concrete illustration of some of the things that the schools are seeking to accomplish.

THE UNIVERSITY OF CHICAGO DINNER

The University of Chicago Dinner, given annually during the meeting of the Department of Superintendence of the National Education Association, will be held at New Hotel Jefferson, St. Louis, Missouri, on Wednesday evening, February 26, 1936. Alumni, former students, and friends of the University are most cordially invited to attend the dinner. Tickets, at the rate of \$1.50 each, may be secured from Professor Robert C. Woellner, University of Chicago.

WHO'S WHO IN THIS ISSUE

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DEVELOPING SOCIAL UNDERSTANDING IN THE ELEMENTARY SCHOOL

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NEED FOR REORGANIZATION OF SCHOOL PROGRAM

Reorganization of the school's program in order that it may contribute more significantly to the development of social understanding by the child is rather widely recognized as a pressing educational need. Special emphasis is being given this point in projected revisions of the secondary-school program. While this emphasis in the secondary school is greatly to be desired, it is important that the responsibility of the elementary school for contributing to the same end be not overlooked. There are still many children who do not remain in school beyond the elementary grades, and the elementary school always enrolls a considerable number of children of secondary-school age who are retained in the elementary grades through non-promotion. Even more important than these considerations is the fact that developing understanding of social life is not something that can be divided according to the administrative plan of a school organization. Thorough, or even acceptable, accomplishment of this task must be based on a plan which encompasses the entire school life of the child.

HISTORICAL BACKGROUND OF THE CURRICULUM

The historical background of the elementary school is such as to discourage any great emphasis in its program on phases of social life of immediate and vital concern. Accomplishing understanding of social life directly through a program of education had no place in the thoughts of the early national leaders who looked to the elementary school as the safeguard and bulwark of democracy. Their oft-uttered statements of faith in universal education expressed trust in simple literacy rather than in direct contributions to be made by the school to the understanding of social issues, problems, and processes.

The ideal was to train all citizens in those fundamental skills which would make it possible for each man to follow the course of political events and to engage in the various activities required of a citizen. Mere possession of the tools needed to do these things was considered an adequate guaranty of good citizenship. Since the primary requisite of good citizenship was at first considered to be ability to read the Bible, emphasis in instruction was placed on developing ability to read. As other needs for effective citizenship were recognized, additional requirements were placed on the school, but faith in literacy and in the ability to figure continued to dominate the curriculum.

Efforts to meet these additional needs, however, gave rise to another important concept which was to exert potent influence on the development of the curriculum. It came to be held that knowledge of certain bodies of facts would make for more effective citizenship. Facts of history, civics, physiology, and geography came to hold a place of prominence in the elementary-school curriculum almost equal to that accorded the development of skills. Thus, the point was reached that training for citizenship was held to require knowledge of certain prescribed facts, as well as literacy. From these determinants of the curriculum developed the memorizing-reciting school as we know it even today, in which emphasis was placed on the ability to read, write, and figure at specified rates and on the ability to reproduce with exactness and in relative isolation dates, names, locations, details of events, definitions, and rules.

During this period of emphasis in the elementary school on memory of facts, the secondary school was being divorced somewhat from the concept of secondary education for the select and was being inducted into the common-school system. As the idea of a public secondary school evolved, emphasis came to be placed on the complementary functions of elementary and secondary schools. The elementary school, it was emphasized, should be primarily concerned with developing skills and with providing for the mastery of basic facts and definitions that would prepare the individual to enter that realm of education which could be concerned with ideas, beliefs, principles, understandings, and appreciations—the secondary school. This concept persists, as is shown by the fact that a school leader of

national prominence, in projecting a plan for fundamental revision of the secondary-school curriculum, recently indicated *the function* of the elementary period of a child's training as that of giving command over important tools which the race has discovered. This division of function, emphasized by the persons guiding the development of secondary schools, has perpetuated the historical idea of the elementary school as a place primarily for developing the ability to read, write, and figure and for providing for the mastery of a specified body of facts and definitions.

INFLUENCES ACTING TO CHANGE CONCEPT OF ELEMENTARY-SCHOOL FUNCTION

Some headway has been made, however, in accomplishing a broadened concept of the function of the elementary school. The most significant contribution in this direction has grown out of the demand expressed through the progressive-education movement for the all-round development of the child. Insistence on consideration of the capacities, abilities, needs, and interests of the child have shown that education of the elementary-school child consists, or should consist, in a great deal more than the development of ability to read, write, and figure and the memorization of facts of history, geography, physiology, and civics. As a result, there has been a tendency—not generally followed in public-school systems, it is true, but nevertheless a significant tendency—to look on the function of the elementary school as including the development of the creative abilities of children.

Another influence which has tended to weaken the concept of the function of the elementary school as primarily concerned with skills and facts is the increasing recognition that skills and facts are not mastered apart from attitudes, understandings, appreciations, meanings, and ideas. It has come to be recognized that, if children are taught to read, they have to read about something and that the attitudes, appreciations, and understandings developed in the process are of importance. Consequently, there is an increasing inclination to look to the elementary school for the beginning of the development of skills which will be continued in the secondary school. The time may be not far distant when the development of desirable generalized controls of conduct will be looked on as the primary

function of all phases of the educational program and when skills and knowledge will be considered at all points the component elements of such controls.

These influences, in conjunction with the renewed interest of the public in elementary schools, evidenced since school expenditures have been pinching; and in combination with the increasing social emphasis on education, make it especially pertinent to consider the contribution which may be made in the elementary school to the development of social understanding.

INADEQUACY OF EFFORTS TO REVISE CURRICULUM

Certain efforts at revision of the curriculum to accomplish this end have already been made. Fusion of the social studies, the development of integrated programs, the organization of courses of study on a unit basis, and the inclusion of new economic and social materials in the curriculum are designed to move in this direction. In spite of these developments, however, the school program, as it generally functions at the present time, almost wholly ignores the development of real social understanding. Efforts in curriculum development have done a great deal to give the pupil opportunity for self-expression, but, so far as social life is concerned, the curriculum remains academic.

Units of work listed in the social studies in many schools described as "progressive" sound not a whit like the activities in which a person would engage if he were really undertaking to find out about social life as it is actually lived. "Living in a Temperate Lowland," "Indians," "Life in Ancient Egypt," "Living in Mountainous Regions" are typical titles of units. In such units what emphasis is found on developing real understanding of social life? The best single source for determining the answer to this question is the material with which the tests on these units deal. Do the tests give recognition to the development of social understanding as a primary objective? The following items of information are required by a test, given as an example to teachers, on a unit widely favored in progressive social studies.

1. The country receiving the largest amount of coal from the United States.
2. The industry which uses the largest amount of coal mined in the United States.

3. The part of the world's coal reserve in the United States.
4. The four states leading in production of bituminous coal.
5. The source of greatest peril to the lives of miners.
6. The name of the gas which forms in coal mines.
7. Four by-products of coal.
8. The name of the most important grade of coal.
9. The grade of coal that cannot be used to make coke to smelt metals.
10. Whether or not coal has been an important factor in the development of the United States.
11. What countries of Europe are the largest producers of coal.
12. Whether hand or machine tools are generally used today in mining.
13. The number of years in which it is estimated the coal supply of the United States will be exhausted.
14. The importance of power in manufacturing.
15. The relative merits of oil and coal as fuels for steamships.
16. The relative permanent value of water and coal as sources of power.
17. Steps that have been taken in the past ten years to conserve our coal supply.
18. The relation of supply of coal to national standing.

This test could have been given on any study of the topic of coal in the most traditional geography course. Memory of facts would see any pupil safely through the test. No questions require the drawing of inferences. Does an understanding enter of the great conflicts of individual and social values that have surrounded mining for generations? Units of work generally are still a considerable distance from social realities.

The inadequacy of much work of this type appears to arise from two sources. Examination of these sources will serve as important guides in endeavoring to develop in the elementary school a curriculum which will contribute more significantly to understanding of social life.

In the first place, the concept of what is involved in social understanding appears to be inadequate. Social understanding, in contrast with the ideas that appear to be basic to the efforts of the authors of these units, means more than mere acquaintance with facts about social life, especially facts set forth in academic surroundings. It means more than ability to state generalizations frequently used by specialists in the social studies. It means more than having an interest in various forms of primitive life and knowing something

of the contribution made by these forms of life to modern civilization. Social understanding means knowing and feeling how our life as a group is actually lived, being able to recognize and to identify the forces in conflict in determining social procedures, knowing how these procedures move forward, and being inclined to participate in them. Such understanding cannot be developed by sitting in the classroom and studying about Eskimos and life in temperate lowlands. The social world about the child must be opened up to him in its realities through opportunity by firsthand experience and observation to see many aspects of group life in operation, to participate in the activities of a variety of groups, and to enrich this experience through the recorded experiences of others. The child must come to intellectual and emotional grip with the actual functioning of social life. This opportunity the elementary school must provide if it is to develop that social understanding which involves both knowing and feeling and which leads to action. Social understanding of this kind is of real significance.

In the second place, these efforts have in general accepted the present framework of the curriculum and have endeavored to achieve improvement by the introduction of new economic and social materials within that framework or by the addition of subjects or units. Both these procedures are accompanied by unfortunate results. The introduction of new economic and social materials into the present pattern tends to result in adding to the present offering that many more facts, principles, and definitions to be memorized and recited. There is not involved the broadening of the experiences of boys and girls which is essential to accomplishment of the desired end. The addition of subjects and units is a procedure of long standing, the shortcomings of which have been pointed out many times. When this procedure is considered in connection with the development of social understanding, the greatest shortcoming is the tendency to separate fundamental subject matter from problems and issues of social significance. This difficulty is well illustrated by the development of high-school courses in problems of American democracy. The Industrial Revolution and the guild system are not employed, along with materials of immediate significance and firsthand experience, as a means of developing understanding of the labor situation

in the city or state but are given an academic setting in courses in history. Later in the course on problems current materials and, occasionally, firsthand experiences are employed in a study of labor problems. This sequence creates a gap which serves to separate fundamental subject matter from the problems and issues where it is of primary significance. This procedure accounts to a great extent for the continued failure of the subject matter of the social sciences to function in improving citizenship and for the tendency of courses such as problems of American democracy to be superficial in nature.

BUILDING A CURRICULUM TO DEVELOP SOCIAL UNDERSTANDING REQUIRES NEW PROCEDURES

It appears, then, that the building of an educational program which may reasonably be expected to contribute significantly to development of social understanding will require procedures fundamentally different from those that have been employed in developing the current program. The procedure of compromise upon which the existing program is based—compromises with the demands of logically organized subject matter, compromises between the various subjects, and compromises with traditions—must be cast aside. In place of the patchwork which has resulted from these compromises, a major controlling plan must be set up in which the scope of the curriculum will be defined with consistency and in which due consideration will be given to the demands of society upon the school for developing understanding of the various phases of group life. This comprehensive plan should look to social life for its major points of reference and emphasis. It should provide for the organization of the curriculum around phases of social life that are functional in nature. Opportunity should be provided through the plan of organization for the child to be introduced to all the important areas of activity in real life and for his gradual induction, starting in the elementary school and continuing through the secondary school, into participation in these activities.

What procedure will accomplish such a fundamental social orientation of the educational program presents one of the challenging problems of curriculum development. It is possible that the approach of the cultural anthropologist to study of social life may be

suggestive. The need in such studies is to avoid a piecemeal attack which overlooks the wholeness of a given culture and the intricate interrelations of its many aspects. At the same time, it is necessary to reduce such studies to a basis that will provide for an orderly procedure which guarantees that all aspects of a culture are considered and which permits objective treatment. This need for dealing with social life as a functioning concern and, at the same time, providing an orderly plan of attack which encourages thoroughness and objectivity is essentially the same problem faced by the curriculum worker in endeavoring to give the curriculum a fundamental social orientation. The approach of the cultural anthropologist is suggested by the following statement from *Middletown*.

There are, after all, despite infinite variations in detail, not so many major kinds of things that people do. Whether in an Arunta village in Central Australia or in our own seemingly intricate institutional life of corporations, dividends, coming-out parties, prayer meetings, Freshmen, and Congress, human behavior appears to consist in variation upon a few major lines of activity; getting the material necessities for food, clothing, shelter; mating; initiating the young into the group habits of thought and behavior; and so on.²

These "major lines of activity" may be looked on as functional phases of social life.

This point of view suggests that a direct analysis of group life might indicate certain functional phases of such permanence as to warrant their use as a basis of curriculum orientation. Study of group life shows that there are certain major centers about which the activities of individuals and the plans and problems of the group tend to cluster. These centers tend to persist and to be common for all organized groups. For example, certain of the activities of primitive tribes tend to center in protection of the lives and the property of the group. In civilized group life protection of life and property is also an important function, about which many activities cluster and from which a group of related problems and issues arise. Since these centers or functional phases of social life represent points about which real life-activities tend to gather and organize, it seems reasonable that a curriculum which is concerned with preparing children to participate effectively in the activities of social life should use

² Robert S. Lynd and Helen Merrell Lynd, *Middletown*, pp. 3-4. New York: Harcourt, Brace & Co., 1929.

these functional phases of social life as points for emphasis and orientation in outlining the curriculum. As the individual develops an understanding of the efforts to discharge these functions in the past, an appreciation of the problems of the present, and ability to anticipate somewhat the problems of the future, and as he actually participates in the discharge of the functions in the present, he will develop that social understanding which makes him an effective member of the social group, participating satisfactorily in the many activities required of him. In this way the program of the school does not stop at merely providing contact and acquaintance with phases of culture, as is the prevalent procedure at the present time. Rather, emphasis is placed on the relations of knowledge, facts, and principles to social situations in which they are continuously used.

A plan of organization of this type would provide a spinal column of such social, political, and economic significance as to vitalize the entire curriculum and to make the whole school program contribute ultimately to development of effective social understanding and to participation in the activities of social life. Organization of the curriculum would not be required in terms of the past or the present or the future alone, but that vital element, a functional phase of social life, would be employed which ties the three together in meaningful relationships.

Attack on the problem from some such approach as that outlined will eliminate artificial distinctions between the elementary and the secondary school and will provide a common center of reference about which the curriculum throughout the common-school period may be projected. In this way the development of an educational program that makes adequate provision for developing understanding of social life may, at the same time, further the development of a unified program of general education that gives due regard to the continuous nature of the child's experience and growth.

WHAT IS THE ACTIVITY SCHOOL?

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Carelessness in the use of terminology is undoubtedly one of the chief causes of confusion in educational writings and discussions. There seems to be what amounts almost to a fear of definition. One investigator found thirteen different programs called "supervised study"; another claims that, because of the wide variability in junior high schools, the junior high school cannot be defined at present; and proponents of the activity school insist that "activity school" cannot be defined, that such a school can only be described.

There is considerable confusion between the activity school and what is frequently called the "progressive school." Many writers use the terms interchangeably. The type of school defined by Ferrière² as the "activity school," for instance, is termed by Rugg³ the "child-centered school," the "new school," and the "progressive school." Mearns considers that Ferrière's definition comes nearest to giving the essence of the activity school, but in his own books, *Creative Youth*³ and *Creative Power*,⁴ Mearns speaks of the activity school as the "new school," the "progressive school," and the "creative school." Kilpatrick, who some years ago made famous the term "purposeful-project" curriculum,⁵ now substitutes the term "ac-

² Adolph Ferrière, *The Activity School*. Translated by F. Dean Moore and F. C. Wooton. New York: John Day Co., 1927.

³ Harold Rugg and Ann Shumaker, *The Child-centered School: An Appraisal of the New Education*. Yonkers-on-Hudson, New York: World Book Co., 1928.

³ Hughes Mearns, *Creative Youth*. Garden City, New York: Doubleday, Page & Co., 1925.

⁴ Hughes Mearns, *Creative Power*. Garden City, New York: Doubleday, Doran & Co., Inc., 1929.

⁵ William Heard Kilpatrick, "The Project Method," *Teachers College Record*, XIX (September, 1918), 319-35.

tivity curriculum"¹ to designate the same thing. Hissong² draws heavily on the works of Cobb, Dewey, Rugg, Naumburg, and Pratt, all of whom constantly employ the term "progressive school," and on the writings of Marietta Johnson, who calls her school the "School of Organic Education." A committee of the National Society for the Study of Education³ concluded that it could not tell exactly where the activity program stopped and progressive education began.

The trouble is caused by the class name "progressive." To try to find out where "activity school" ends and "progressive school" begins is like trying to determine where the term "chair" stops and the term "furniture" begins. "Progressive school" is a much broader term than "activity school"; it includes more and other factors than *education through spontaneous, creative child activities*. Thus, a consolidated school equipped with motion-picture machines, a library, musical instruments, athletic facilities, etc., is a progressive school when compared with a one-room school in which there is a single textbook curriculum under a strictly formal "hearer-of-lessons" type of teacher. Individualized-instruction, socialized-recitation, and supervised-study schools are all progressive in the sense that they are, or attempt to be, improvements over the traditional recitation type of school. The term "progressive" is enveloping and extensive; it covers all the proposed remedies for the defects in traditional teaching method. In other words, there is no point at which progressive education ends and the activity program begins: all activity schools may be classified as progressive schools, but not all progressive schools are activity schools.

Another difficulty is found in the meaning of the word "activity" itself. As some writers use the word, it means everything in general and nothing in particular: directed activity, supplementary activity, sense-training activity, free activity, co-operative activity, activities as means, activities as ends, purposive activity, any kind of ac-

¹ William H. Kilpatrick, "Definition of the Activity Movement Today," *The Activity Movement*, pp. 45-76. Thirty-third Yearbook of the National Society for the Study of Education, Part II. Bloomington, Illinois: Public School Publishing Co., 1934.

² Clyde Hissong, *The Activity Movement*. Educational Psychology Monographs, No. 30. Baltimore: Warwick & York, Inc., 1932.

³ *The Activity Movement*. Prepared by the Society's Committee on the Activity Movement. Thirty-third Yearbook of the National Society for the Study of Education, Part II. Bloomington, Illinois: Public School Publishing Co., 1934.

tivity. Franklin Bobbitt,² for example, says, in effect, that any kind of school work is an activity. "Drill is activity. All memorization of information by any method whatever is mental activity. No curriculum has ever been invented that was not an activity curriculum." He then lists a finely graded series of types of activity curriculums, ranging from what he calls the "traditional academic activities" type to the type "that sets up activity as its objective."

Describing the first type, he writes: "These traditional academic activities are, however, abstracted from their settings and mastered by the child in isolation from the main currents of his life. The activities seem to him alien, artificial, and irrelevant." He proceeds to show how the trend has been toward activities which are less artificial and which have more meaning in the daily life of the child; how extra-curriculum activities came into the schools. "These so-called 'extra-curriculum activities' seem to be more genuine, more human, and closer to life because they involve active purposing, planning, and participation in the current life of the school, home, and community." They did not, however, affect the mode of teaching the older subjects; they were simply additional subjects that ran parallel to the conventional courses and left them as formal in character as before. The next step was the employment of activities to introduce and to supplement the teaching of the formal subjects. This type of activity curriculum "is a change of *methods*, not of *objectives*." The final type in the series Bobbitt describes as follows:

It is the kind that has moved on to the further conception that *both* the objective and the method of education should be activity. It does not aim at subject matter, but at *life properly lived*. It aims not at the academic mastery of information and skills but rather at a continuity of high-grade human living. It aims not at static factors of the personality but at a continuity of human behavior. . . . It is the type that represents both the logical and the practical culmination of the current trend. Each of the series of types, beyond the first, is a step in the direction of this last one.

If the traditional school, the extra-curriculum-activity school, the supplementary-activity school, and the activity-curriculum school described by Bobbitt are all activity schools, then obviously the word

² Franklin Bobbitt, "The Trend of the Activity Curriculum," *Elementary School Journal*, XXXV (December, 1934), 257-66.

"activity" cannot be used to characterize any one of them. In order that ambiguity may be avoided, a name which characterizes any one of them must be a word standing for some trait in which it is unlike the others, not a trait which all have in common.

The outstanding characteristics of the schools of Bobbitt's first type, schools in which adult knowledges and skills are "abstracted from their settings and mastered by the child in isolation from the main currents of his life," were their cruelty and artificiality. Reformers sought to make school work less gloomy and to bring about conditions in which interest in work would supersede the rod as a means of discipline. Comenius introduced pictures and familiar words in the textbooks; Pestalozzi brought the objects themselves into the classroom; Froebel and his followers stressed the value of play in learning; Montessori emphasized the value of liberty; and, as a result of the efforts of modern progressive leaders, music, art, libraries, gymnasiums, motion-picture machines, rest periods, study periods, individual instruction, socialized recitations, etc., are now found in schoolrooms.

Nevertheless, artificiality, neatly retailored and scientifically modernized, remained in the schools to realize *in a better way* the old primary aim of mastery of so much reading, writing, arithmetic, spelling, geography, and history within a certain specified time. No matter how simple, interesting, and sensitive to child life, school tasks remained external requirements, as unnatural a substitute for the activities of daily living as had been Latin grammar and dogmatic religious instruction—pleasurable perhaps, certainly better than a stern master and a rod, but in many cases of no immediate use to the pupil.

Parker and Dewey, Meriam, Collings, and Johnson, and the more recent exponents of the same brand of educational practice, now referred to as the "activity school," followed a different road to reform. Instead of attempting to make traditional learning more humane, they aimed to make natural human behavior more intelligent, to secure development in the child by helping him to express himself. They called attention to the kinds of playing, observing, conversing, and making of things that go on outside the school and to the learning that develops through these activities. Accordingly,

they based their school program on what children would do naturally if there were no schools.

The school then becomes a place where children carry on—explore; converse; play games; build boats, kites, electric bells, aeroplane models; draw; paint; and form groups in order to produce a play—as they would in a world of their own. In other words, the school is a continuation of preschool life. The function of the teacher is to guide children to do better those things in which they engage naturally. Reading, writing, arithmetic, geography, and history are learned just as talking is learned, as means to the realization of desired ends; they are modes of procedure into which everyday experiences develop because of their value in satisfying needs.

It is evident at once, therefore, that the proponents of such an educational program consider needs, special aptitudes, and self-expression the primary concerns in genuine learning. Consequently, activities constitute the *whole* of school life. It is this feature which distinguishes their practices from those of all other progressive schools and which has been singled out in naming their schools “activity schools.”

When similarities and differences are taken into account, it seems that the genus of a definition of the activity school is “progressive school” and the differentia is “faith in education through natural, purposeful, creative enterprises.” The definition, then, would read as follows: The activity school is a progressive school in which the learning process is directed through the spontaneous, creative activities of children.

WHAT ABOUT SCHOOL FAILURES?

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Do children fail, or has the school, in its effort to establish uniform grade standards, failed to recognize individual differences in ability to achieve? A recent study of failing pupils in Grades I and II in the schools of Meriden, Connecticut, raises questions relating to the school's responsibility for failure. In 1934-35 there were 199 repeaters in Grades I and II of the Meriden schools. In an attempt to get at the reasons for failure, facts were gathered relating to the intelligence, the physical status, and the handedness of each child; the age at which he entered Grade I; the grades repeated; father's occupation; and the teacher's reasons for failure. One hundred and forty-five children were given physical examinations, intelligence tests were given to ninety-four, and the teachers made special reports on ninety-nine cases.

A picture of the physical status of the group was drawn from records of physical examinations. Among the 145 children who were examined, there were 41 children without physical defects, 14 with hearing defects, 9 with defects of vision, 3 with strabismus, 19 suffering from malnutrition, 3 from obesity, 20 with enlarged tonsils, 18 with adenoids, 3 with birth injuries, 4 with chronic otitis media, 11 having poor muscular co-ordination, 2 with deviated septums, and 2 with heart murmurs. Thirty children had two or more defects. Of these, seventeen had two defects, ten had three defects, one had four, and two had five. These children are called "failures." Have they failed or has the school failed because it has not provided a program that makes it possible for children with limited physical capacity to progress at the rates of speed which are normal for them?

The Stanford Revision of the Binet-Simon Intelligence Scale was given to 94 children. The intelligence quotients ranged from 64 to 106. Eight children had intelligence quotients above 100. Twenty-

nine children had intelligence quotients between 90 and 106; 38 children, quotients between 80 and 90; 20 children, quotients between 70 and 80; and 7 children, quotients below 70. On the whole, the group was limited in mental capacity, and for this reason they would be expected to proceed slowly with abstract learning. A program fitted to their intellectual needs would necessarily provide for a late introduction of abstract symbols, such as are called for in reading, writing, and numbers; for a prolonged period in which to master the minimum amounts of skills in reading, writing, and figuring; and for many experiences calling for the use of these skills. Some of these children, it may be expected, will only be beginning to grasp the meaning of these symbols at eight and nine years of age. In the meantime they should be gaining in life-experience and developing physically, socially, and emotionally. If these children have been placed in schoolrooms with six-year pupils who in experience and in physical status are normal children for their chronological age, is it not the school rather than the child that has failed? If the program of the school is to be built around the needs of children, will not the school provide opportunity for the children whose mental development is slow to take the beginning steps in reading, writing, and figuring in Grade II or even in Grade III?

The occupations of the fathers of the group indicated somewhat limited home backgrounds. The data secured on sixty-eight cases are given in Table I. As the occupations of the fathers indicate financial conditions incapable of providing a broad background of experience, such as is provided by travel, books, etc., it becomes the school's responsibility to make up for the lack. Have the schools failed to provide for the enrichment of experience which is necessary for progress in school subjects?

A large number of the failing pupils had had kindergarten experience. Of sixty-four cases reporting, forty-eight had attended kindergarten. Of seventy-four cases reporting the grade repeated, seventy were repeating or had repeated Grade I. Seven of these pupils had repeated Grades I and II, one had twice repeated Grade I, and one child had repeated kindergarten and Grades I and II. Is the school providing for the continuous development of these children? If repe-

tition of a grade simply means a repetition of experience, will not a complete sense of failure result?

The reasons assigned by the teachers for the failures of the pupils are shown in Table II. It is interesting to compare the physical reasons mentioned by the teachers with the difficulties uncovered in the physical examinations. Though there were fourteen children with defective hearing, not one classroom teacher mentioned this defect as a possible cause of failure. There were twenty cases of enlarged tonsils, but this difficulty was mentioned only three times in

TABLE I
DISTRIBUTION ACCORDING TO OCCUPATION OF FATHERS OF
SIXTY-EIGHT FAILING PUPILS

Occupation	Number of Fathers	Occupation	Number of Fathers
Factory worker.....	20	Factory superintendent.....	1
Carpenter.....	5	Furniture dealer.....	1
Day laborer.....	5	Gas-company worker.....	1
Farmer.....	3	Insurance agent.....	1
Sand buffer.....	3	Mason.....	1
Tailor.....	3	Milkman.....	1
Janitor.....	2	Post-office clerk.....	1
Restaurant worker.....	2	Printer.....	1
Toolmaker.....	2	Salesman.....	1
Truck driver.....	2	Shoe polisher.....	1
Assistant foreman.....	1	Taxicab driver.....	1
Barber.....	1	Telephone operator.....	1
Clerk.....	1	Unemployed.....	5
Contractor.....	1		
		Total.....	68

the teachers' reports. These discrepancies would seem to indicate that the results of physical examinations are not made use of by teachers in making their program plans.

Many of the causes of failure listed by the teachers indicate unfavorable attitudes on the part of pupils. Do teachers know why these attitudes exist? Do they go beyond the classroom into the neighborhood or, more important still, into the home to find out why children are disinterested, careless, shy, babyish? If these questions can be answered in the affirmative, then the school has not failed.

Teachers are conscious, apparently, of mental and scholastic difficulties. Are they planning programs which will allow each child to

move at his own rate of speed? Are second-grade and third-grade teachers prepared to teach first-grade reading to the few who progress slowly? One teacher reported: "His trouble was mostly visual,

TABLE II
REASONS GIVEN BY TEACHERS FOR FAILURE OF 199 PUPILS IN GRADES
I AND II AND FREQUENCY OF MENTION OF EACH REASON

Reason	Frequency of Mention	Reason	Frequency of Mention
Physical factors:		Social and emotional factors—	
Poor health.....	14	<i>continued:</i>	
Illness.....	13	Erratic.....	1
Defective vision.....	5	Father dead.....	1
Enlarged tonsils.....	3	Lack of application.....	1
Accident.....	2	Lack of kindergarten training.....	1
Underweight.....	2	Lack of playmates.....	1
Adenoids.....	1	Mother deserted family.....	1
Defective speech.....	1	Only child.....	1
Easily exhausted.....	1	Parents separated.....	1
Heart trouble.....	1	Parents too proud to accept help.....	1
Paralysis of arm and leg.....	1	Poor attitude.....	1
Slow physical development.....	1	Poor concentration.....	1
Social and emotional factors:		Spoiled.....	1
Poor attendance.....	18	Too much attention from parents.....	1
Poor home conditions.....	11	Mental and scholastic factors:	
Use of foreign language in home.....	8	Slow to learn.....	21
Mischievousness.....	6	Low mentality.....	17
Excessive shyness.....	5	Reading difficulties.....	10
Frequent moving of family.....	4	Brothers and sisters slow.....	6
Lack of ambition.....	4	Inadequate school preparation.....	5
Inattentive.....	3	Number difficulties.....	4
Lack of interest.....	3	Poor memory.....	3
Immature.....	2	Handwork difficulties.....	2
Lack of care.....	2	Not ready for reading.....	2
Lack of effort.....	2	Father in insane hospital.....	1
Mother dead.....	2	Mother in insane hospital.....	1
Poor social adjustment.....	2	Mirror writer.....	1
Babyish.....	1	Motor-minded.....	1
Born in foreign country.....	1	Parents of low mentality.....	1
Careless.....	1	Repetition recommended by another school.....	1
Child moved about to different homes.....	1	Unable to follow directions.....	1
Dreams.....	1		
English poor.....	1		
Enunciation poor.....	1		

I think, although his sight was normal. He copied words upside down or backwards. He could not recall printed words but could remember and recite poems." Did this teacher make an effort to find the best ways of helping this mirror writer? Or was she content

to call the difficulty curious and to wait until greater difficulties arose? Have the teachers used all sources available to help them solve the problems of these children who are called failures? Nurses, doctor, visiting teacher, and supervisors are available in this school system. Have these workers made the teacher cognizant of the services which they can render? Is the teacher using the help they can give her in making her plans? If she is using all available sources of information and help, is failure necessary?

The foregoing discussion should give some idea of the individual differences usually existing in a group of so-called "failures" and should help the reader to an understanding of the problem which the teacher faces in planning her program if the school is not to fail in its responsibility. The questions raised here must be raised by every teacher who keeps children rather than subject matter in mind.

BOYS AND GIRLS AND CURRENT EVENTS

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PROBLEM AND METHOD OF PROCEDURE

We school workers in South Portland have felt, in common with many busy school people, that the only time available for current events was the very limited and elusive amount which was occasionally "left over." Believing, however, that a knowledge of current events is important and is entitled to greater recognition, we have endeavored for the past two years to find out definitely how current events have been faring in this school system.

Early in the calendar years of 1934 and 1935 a multiple-choice test of our own devising was given to approximately eighteen hundred pupils in Grade VI and above, including high school postgraduate pupils. The test involves the identification of persons and events figuring prominently in the news of the preceding year. There are fifty questions, and the rare perfect score is fifty. An attempt is made to have the questions reasonably distributed through several fields of interest, although the emphasis is somewhat on politics and economics, twenty selections being in these two fields. Six selections are made in the field of science, and six are designed to show the influence of the radio. Two to five references are made in each of the fields of popular literature, sports, motion pictures, and crime, and a few questions may be classed as current general knowledge. The following are typical test items.

The Saar Basin is in—

(1) Canada (2) Europe (3) South America ()

"America's Cup" is an award in the field of—

(1) horse racing (2) golfing (3) yachting ()

The Townsend Plan concerns—

(1) old-age pensions (2) power development (3) subsistence homesteads ()

We have sought, through study of the test results, to obtain answers particularly to the following questions: (1) How do the pupils in different grades compare in their knowledge of current events? (2) How do boys and girls compare in their knowledge of current events? (3) How does current-events knowledge vary in different classrooms of the same grade? (4) How do different types of instruction affect the pupils' knowledge of current events?

The test results in both elementary school and high school have been used in seeking answers to the first two questions, while for answers to the last two only the results in the elementary grades are referred to.

KNOWLEDGE OF CURRENT EVENTS IN DIFFERENT GRADES

The grade medians for the two years that the tests have been given are shown in Table I. These indicate to some extent the differ-

TABLE I
MEDIAN SCORES BY GRADES ON TESTS OF CURRENT
EVENTS GIVEN IN 1934 AND 1935

GRADE	MEDIAN SCORE	
	1934	1935
VI.....	25	27
VII.....	29	30
VIII.....	34	32
IX.....	36	34
X.....	40	35
XI.....	42	37
XII.....	44	42
Postgraduate.....	47	43

ences in the knowledge of current events possessed by pupils in the different grades. The 1935 test proved to be somewhat more difficult than the 1934 test for all levels except Grades VI and VII, where the former was slightly easier. From the results of the two years' tests combined, one may generalize that the median sixth-grade pupil should identify correctly one-half of the test items and that the median high-school Senior should know 86 per cent. Time and maturity count, and apparently the postgraduate student may be expected to know about 90 per cent of the items.

KNOWLEDGE OF CURRENT EVENTS POSSESSED BY
BOYS AND GIRLS

The data in Table II show that the knowledge of current events possessed by the boys was generally superior to that of the girls. The boys led in all four high-school classes and in the postgraduate group. In the elementary-school grades the boys excelled in eighteen rooms, the girls in four, and the two groups had an equal standing in four other rooms. The girls as a group equaled the boys in Grade VII.

In 1934 detailed comparisons of boys and girls were made only in the high school. The boys excelled in every class, as they did in

TABLE II
MEDIAN SCORES OF 897 BOYS AND 902 GIRLS ON
TEST OF CURRENT EVENTS GIVEN IN 1935

GRADE	MEDIAN SCORE	
	Boys	Girls
VI.....	28	24
VII.....	29	29
VIII.....	34	31
IX.....	36	32
X.....	37	32
XI.....	40	35
XII.....	44	40
Postgraduate.....	45	41

the year 1935. The mean score for high-school boys in 1934 was 41.9, and the mean score for the girls was 38.8, a difference of 3.1. The closest competition was among the postgraduates, with boys and girls only two points apart, while the greatest difference was in the Freshman class, where the means were 34.4 for the girls and 41.5 for the boys.

Evidence of the boys' superiority was also given by the perfect scores. In 1934 sixteen perfect scores were earned in Grades IX-XII, inclusive, and all but one of these were made by boys. The one girl making a perfect score was a high-school Senior. In 1935 perfection was apparently more difficult to attain, but the one perfect score was made by a boy, a postgraduate student. There

were a number of scores of 49, but *Anthony Adverse* or the newly-elected senator from Maine marred a record which otherwise would have again been perfect for a small group comprised chiefly of boys.

Boys often tend to aberrate more than girls academically, as well as in other ways. If the first prize goes to a boy, so also may the booby. In the current-events test, however, in practically all grades the lowest scores were made by girls. The lowest-scoring girl averaged three points below the lowest-scoring boy, this difference being about the same as the average divergence between the medians. The most outstanding divergence between low scores appeared in 1935 for the high-school Juniors, where the lowest-scoring girl stood six points below the lowest-scoring boy.

VARIATION IN KNOWLEDGE OF CURRENT EVENTS IN DIFFERENT CLASSROOMS OF THE SAME GRADE

Twenty-seven elementary-school rooms with an aggregate membership of 915 were studied. When comparisons were made between different rooms in the same grade, it was found that the pupils' knowledge of current events varied greatly. The class medians in ten sixth-grade rooms ranged from 22 to 35, compared with a city-wide median of 27. Nine seventh-grade rooms ranged from 23 to 34, with a city median of 30. Eight eighth-grade rooms ranged from 26 to 36, with a city median of 32. The range of knowledge in different rooms of the same grade is further shown by the fact that the best sixth-grade room had a median score of 35, which was exactly the median for the high-school Sophomore class. The best seventh-grade room, not quite so outstanding, nevertheless attained the high-school Freshman median of 34, while the best eighth-grade class median of 36 ranked half way between the Sophomore median (35) and the Junior median (37).

Since it was recognized that differences in group ability played a part in these variations in classroom standing, an "expected score" was devised as a check on the actual earned scores. The expected score was obtained by multiplying the city median score for a given grade by the median intelligence quotient of the class and dividing the product by 100. For example, the city median for Grade VII (30) times the median intelligence quotient of Room A (107), divided by 100, equals an expected score of 32. Such a meas-

ure has statistical limitations, but it gives reasonable weight to the element of ability and, when compared with the actual score, indicates to the teacher approximately how her group measures up to its possibilities.

Eight of the twenty-seven class groups under consideration exceeded their expected scores, the excess ranging from one to eleven points, with a median excess of two. Five classes exactly attained their expected scores, while fourteen fell short by one to five points. The greatest excess occurred in the case of the highest-scoring sixth-grade group, which attained a median of 35 with an expected score of only 24. The greatest deficiency occurred in the case of the low-scoring seventh-grade group, which had a median of 23 compared with an expected score of 28. Most of the expected-score deficiencies, however, were small, the median and the mode (seven cases) being 1.

It may be said, in summary, that, while a majority of the groups approximated their expected scores, there were enough groups which varied perceptibly above or below to indicate that important factors other than ability played a part. Superior instruction or environmental opportunity proved helpful to some groups, and lack of instruction or opportunity handicapped others.

In the next section of this article some of the instructional factors playing a part in the results are discussed, but consideration of environmental factors will be reserved for a future study.

EFFECTS OF DIFFERENT TYPES OF INSTRUCTION ON KNOWLEDGE OF CURRENT EVENTS

The elementary-school course of study has left the method of current-events instruction largely to the teacher. In the 1935 study of test results special attention was given to the relation of types of instruction to proficiency in the tests.

The materials and general methods used by the twenty-seven teachers in Grades VI, VII, and VIII may be summarized as follows: (1) systematic instruction using chiefly newspaper clippings (eight teachers); (2) systematic instruction using current-events periodical (four teachers); (3) informal, irregular instruction, (a) using newspaper clippings (eight teachers), (b) without clippings or periodical (six teachers), and (c) practically no provision for current events (one teacher).

The time given to current events was also variable. Thirteen teachers set aside definite weekly periods ranging in length from ten to fifty minutes, the median being thirty. Seven devoted twenty to thirty minutes a week rather irregularly to current events, the time often varying from week to week. The remaining teachers, except for the instructor who practically omitted current events, gave the subject more or less casual treatment, discussing news items as they might be associated with class work in history or geography.

It is difficult to discover definite relations between the test results and the various instructional procedures, but the following tendencies were observed.

1. Current-events knowledge tended to be somewhat above the average if instruction was regular and definite. This tendency may best be shown by comparing the scores of the pupils taught by the three methods with their expected scores. The pupils receiving regular instruction through the use of clippings exceeded their expected scores by a mean of 1.93; the pupils receiving regular instruction through the use of periodicals exceeded their expected scores by a mean of 0.89; but the group receiving informal instruction with or without clippings fell short of their expected score by a mean of 1.33.

The materials used did not appear to make so much difference as the manner in which they were used. Newspaper clippings, when systematically used, were somewhat more effective than a current-events periodical, but a teacher is much more likely to treat current events systematically if she has a periodical. All teachers using a periodical gave systematic instruction, while only half of those depending on clippings had definite programs.

The value of systematic instruction is further emphasized by comparing the outstanding sixth-grade room which far exceeded its expected score and the low-scoring seventh-grade room which fell far below. In the former room clippings were used in an organized manner for a consistent half-hour a week; in the latter neither a periodical nor clippings were used, and discussion was wholly incidental and informal.

2. There was a tendency for the girls to take advantage of defi-

nite, systematic instruction, with either clippings or a periodical. Where such instruction was available, the scores of the girls more nearly approached those of the boys. The mean amount by which the scores of all boys exceeded the scores of all the girls was 3.63. In contrast, in the group receiving regular instruction with the use of clippings, the girls' mean scores exceeded the boys' mean scores by 0.44, and in the group receiving regular instruction with a periodical the boys' mean scores exceeded the girls' mean scores by only

TABLE III
COMPARISON OF RESULTS ON TEST OF CURRENT EVENTS
OF THREE HIGHEST AND THREE LOWEST INTELLIGENCE-QUOTIENT GROUPS

Median Intelligence Quotient	Mean Excess over Expected Score
118.....	-3.0
115.....	-1.0
108.....	-2.0
83.....	0.0
82.....	0.0
82.....	2.5

1.20. In Grade VII (with six out of nine class groups receiving regular instruction) the mean scores of the boys and the girls were identical.

3. There was a tendency for class groups with median intelligence quotients above 100 to fail to make scores proportionate to their ability. Of ten such groups, only two exceeded their expected scores, but of seventeen groups with median intelligence quotients of 100 or less, six exceeded and five equaled their expected scores. A sampling of the high and the low intelligence-quotient groups is shown in Table III.

4. It was disconcerting to find that the one group receiving practically no instruction gained the grade median and exceeded its expected score by one point, for the implication would seem to be that much of the pupils' knowledge of current events was gained regardless of the instruction and not because of it. On the other hand, the outstanding sixth-grade room and several other groups systematically using clippings or current-events periodicals showed the value of definite, regular instruction. Even if a considerable

amount can be learned with little or no instruction, the encouraging indication is that much more can be accomplished if the teaching of current events is made a serious, carefully organized part of the course of study.

CONCLUSION

It was the aim in these first two tests of the knowledge of current events to discover various conditions and influences within the school system. In connection with the 1936 test it is proposed to study particularly the influence of school and environmental situations on a knowledge of current events. To this end the test will be given in several widely scattered communities representing varying types of educational and social opportunities.

PICTURES IN GEOGRAPHY TEXTBOOKS

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INTRODUCTION

Pictures have long been recognized as an invaluable tool in geography instruction, especially when the pictures are an integral part of a textbook. Consequently, as a part of an evaluation of textbooks in geography for the elementary-school grades, a careful study of the pictures included in such materials is required. At present nine complete series of geography textbooks are in rather general use, eight of which are roughly comparable in that they tend toward the single-cycle organization. These eight were used in this study of pictures included in textbooks in geography.

QUANTITATIVE ASPECTS OF PICTURES IN GEOGRAPHY TEXTBOOKS

Perhaps the first consideration is the amount of illustrative material. The number and the average size of pictures, the frequency of occurrence, and the amount of space consumed by pictures included in the eight series examined are shown in Table I. These data indicate a rather wide range in the number of pictures included. Series A, with the largest total number, contains more than twice as many as Series F, which has the smallest number of pictures of any of the four-book series. The range in the total number of pages included in the books is less marked, extending from 1,020 pages in Series F to 1,540 pages in Series H. There appears to be a definite but rather low relation between the total number of pages, the total number of pictures included, and the total number of pages of pictures included.

In terms of size, the largest pictures are found in the books of Series C and in the fifth- and the seventh-grade books of Series F.

TABLE I

NUMBER, AVERAGE SIZE, AND FREQUENCY OF OCCURRENCE OF PICTURES
AND AMOUNT OF SPACE CONSUMED BY PICTURES INCLUDED
IN EIGHT GEOGRAPHY SERIES

Book	Number of Pictures	Average Size of Pictures in Inches	Number of Different Pages on Which Pictures Occur	Number of Pages in Book	Average Frequency of Occurrence of Pictures	Number of Full Pages of Pictures	Percentage Which Pictures Are of All Materials
Fourth grade:							
A.....	203	4×2	110	150	1.36	36	24.0
B.....	189	4×3	121	168	1.39	42	25.0
C.....	182	4×4.25	165	224	1.36	61	27.2
D.....	135	4×4	48	169	3.52	35	20.7
E.....	159	4×3.25	116	168	1.45	40	23.8
F.....	162	5×3	108	153	1.42	45	29.4
G.....							
H.....	379	4×3.50	258	337	1.31	106	31.5
Median..	182	4×3.50	116	168	1.39	42	25.0
Fifth grade:							
A.....	462	4×2.75	256	330	1.29	112	33.9
B.....	265	4×3.50	214	317	1.48	65	20.5
C.....	217	4×3.50	197	332	1.68	59	17.8
D.....	335	5×2	80	327	4.09	56	17.1
E.....	128	4×3.50	100	205	2.05	35	17.1
F.....	268	4×4	108	289	1.46	78	27.0
G.....	232	4×3.50	190	362	1.91	62	17.1
H.....	334	5×3	240	385	1.60	86	22.3
Median..	267	4×3.50	198	329	1.64	64	19.2
Sixth grade:							
A.....	551	4×2.50	303	391	1.29	116	29.7
B.....	321	4×3	246	354	1.44	72	20.3
C.....	232	4×4.25	216	392	1.81	77	19.6
D.....	262	5×2	64	327	5.11	44	13.5
E.....	163	4×3.25	123	219	1.78	39	17.8
F.....	201	4×4	162	281	1.73	61	21.7
G.....	227	4×4	207	376	1.82	72	19.5
H.....	428	4×3.25	283	395	1.40	102	25.8
Median..	247	4×3.25	212	365	1.76	72	20.0
Seventh grade:							
A.....	438	4×2.50	265	352	1.31	95	27.0
B.....	195	5×3	155	264	1.70	52	19.7
C.....	228	4×3.50	202	408	2.02	63	15.4
D.....	158	3.50×2	27	344	12.74	18	5.2
E.....							
F.....	162	5×4	137	297	2.17	60	20.2
G.....	201	4×3.25	161	305	1.89	50	16.4
H.....	339	4×3.25	237	423	1.78	90	21.3
Median..	201	4×3.25	161	344	1.89	60	19.7

TABLE I—*Continued*

Book	Number of Pictures	Average Size of Pictures in Inches	Number of Different Pages on Which Pictures Occur	Number of Pages in Book	Average Frequency of Occurrence of Pictures	Number of Full Pages of Pictures	Percentage Which Pictures Are of All Materials
Books for all grades:							
A.....	1,654	4×2.5	934	1,223	1.31	359	29.4
B.....	970	4×3.3	736	1,103	1.50	231	20.9
C.....	859	4×3.1	780	1,356	1.74	260	19.2
D.....	890	4×2.6	219	1,167	5.33	153	13.1
E*.....	450	4×3.3	339	592	1.75	114	19.3
F.....	793	4×4.1	605	1,020	1.69	244	23.9
G*.....	660	4×3.6	558	1,043	1.87	184	17.6
H.....	1,480	4×3.4	1,018	1,540	1.51	384	24.9
Median..	875	4×3.3	671	1,135	1.72	238	20.1

* A three-book series.

The smallest appear in the fourth-, sixth-, and seventh-grade books of Series A and the fifth-, sixth-, and seventh-grade books of Series D. Considered as a whole, the median picture contained in the books for all grades is slightly less than $4 \times 3\frac{1}{2}$ inches in size. Generally speaking, there is little difference in the median sizes of the pictures for the various grades. However, the average size of the pictures in Series D tends to decrease by grades so that the pictures in the seventh-grade book are less than one-half as large as the pictures in the fourth-grade book of this series. In contrast, the pictures in Series F show a slight increase in size by grades, with the result that the average picture in the seventh-grade book is 33 per cent larger than the average picture in the fourth-grade book. Whether the authors of these series have deliberately attempted to grade their pictures in terms of size is not known, but, if such a practice is attempted, it would appear reasonable to place the larger pictures in the books for the lower grades.

The extent to which the pictures are interspersed through a book is important. A measure of this aspect was obtained by dividing the total number of pages of material by the number of different pages on which one or more pictures are placed. In Table I this measure

is designated as the "Average Frequency of Occurrence of Pictures." Except in Series D, in which pictures are grouped on separate pages, fairly uniform practices of distributing pictures prevail in these books. In terms of the median practice, pictures appear with less frequency as the grade increases, one or more pictures being found on every 1.39 pages in the fourth-grade books, every 1.64 pages in the fifth-grade books, every 1.76 pages in the sixth-grade books, and every 1.89 pages in the seventh-grade books. Considered as a whole, the highest average frequency of occurrence is found in Series A, with Series B and H following in the order named.

Table I also shows the proportion of each book devoted to pictures. This percentage was ascertained by determining the total number of square inches of page space consumed by pictures, reducing this number to *full pages* of pictures, and computing the percentage which the pictures are of the total number of pages of textbook materials. The books of Series A generally devote the largest proportion of space to pictures, about one-third of the fifth-grade book of this series being used for pictures. The books of Series D devote the smallest proportion of space to pictures. Practice among the several textbook series is fairly uniform in the various grades. Expressed in terms of the median practice in the grades, pictures account for about one-fifth to one-fourth of all materials (maps, text, questions and exercises, graphs, diagrams, and tables) included in the typical textbook in geography.

MAJOR TYPES OF SCENES OR ACTIVITIES DEPICTED

The second phase of this study centered in a classification of the pictures on the basis of the scenes which they depict. Complete objectivity is probably not possible in such a classification, since many pictures show more than one scene, but a classification of pictures according to what was considered the center of interest appeared to be reasonably objective. For example, a picture showing African pygmies performing a ceremonial dance in the foreground with their huts in the background would be classified as a "native-life" scene rather than "human habitation" since the primary emphasis is on the dance and the huts are only incidental. Distinctions of this type have been made in classifying pictures in all the books for the several grades.

The data of Table II indicate that from 71 to 83 per cent of all the pictures in the fourth-grade books show (1) native life, (2) landscapes, (3) agricultural scenes, (4) cities and city areas, (5) native

TABLE II
PERCENTAGE OF PICTURES IN EIGHT GEOGRAPHY SERIES SHOWING
MAJOR TYPES OF SCENES OR ACTIVITIES

Book	Native Animals	Native Life	Human Habitations	Special Buildings	Cities and City Areas	Landscapes	Manufacturing Processes	Manufacturing Scenes	Agricultural Processes	Agricultural Scenes	Commerce Activities	Fishing Activities	Lumbering Activities	Mining Activities	Miscellaneous
Fourth grade:															
A.	5	27	2	5	10	17	0	2	4	9	10	1	1	1	6
B.	50	26	11	4	4	13	10	1	6	13	10	4	*	1	4
C.	27	4	5	10	10	10	13	1	0	11	5	4	0	1	4
D.	13	26	13	13	7	23	0	0	3	7	7	6	0	1	4
E.	7	18	6	13	13	21	13	1	5	10	10	4	0	1	4
F.	4	23	9	1	17	10	1	1	3	11	8	2	1	1	2
G.															
H.	10	31	9	1	2	19	3	*	6	3	6	3	0	0	7
Median ..	8	26	6	1	10	17	*	1	4	10	8	3	0	1	4
Fifth grade:															
A.	1	4	3	7	17	21	1	5	7	9	8	4	2	6	5
B.	*	6	2	0	10	10	5	5	15	11	13	2	4	7	5
C.	1	1	1	4	11	24	3	6	6	15	8	1	3	6	6
D.	1	5	2	5	12	19	3	3	8	12	15	2	1	6	2
E.	0	6	4	2	10	20	4	4	9	10	10	2	2	6	2
F.	*	*	3	18	18	18	3	10	18	13	13	1	5	6	0
G.	2	3	2	1	10	11	8	5	4	21	10	5	5	3	1
H.	2	13	3	1	10	19	2	2	9	16	11	1	1	4	4
Median ..	1	6	3	3	15	19	4	5	9	14	12	2	3	6	2
Sixth grade:															
A.	3	18	4	6	12	12	1	6	5	12	10	2	3	3	3
B.	0	9	6	5	16	7	6	5	11	11	15	2	2	4	3
C.	5	11	5	4	18	15	1	4	7	12	0	2	1	2	3
D.	1	14	3	5	14	14	6	2	6	11	17	3	*	3	1
E.	0	17	6	2	10	10	5	2	10	12	18	1	3	4	0
F.	0	12	8	1	10	17	2	10	6	15	11	2	2	4	0
G.	2	12	5	2	20	7	3	5	4	16	16	1	1	2	1
H.	4	21	8	3	13	15	2	2	6	10	8	*	2	2	4
Median ..	2	13	6	4	14	13	3	5	6	12	13	2	2	3	1
Seventh grade:															
A.	1	12	2	5	11	13	2	5	8	13	12	3	3	5	5
B.	1	7	2	1	17	12	5	7	11	12	12	0	5	6	2
C.	4	6	2	3	11	3	11	9	3	16	18	2	3	7	11
D.	2	8	4	0	3	12	8	5	6	14	18	6	4	6	4
E.															
F.	0	10	10	0	12	19	1	4	8	20	6	*	4	6	2
G.	1	2	2	0	1	12	12	11	7	14	17	6	4	9	2
H.	4	15	0	1	0	7	7	7	6	17	14	3	2	6	11
Median ..	1	8	2	*	3	12	7	5	7	14	14	3	4	6	5

* Indicates a fractional amount.

animals, and (6) commerce activities. All fourth-grade books, with the exception of Book E, with 21 per cent of its pictures showing landscapes, give the greatest emphasis to pictures of native life. A further variation in practice is to be noted in the fourth-grade book

of Series F, with 17 per cent of its pictures showing cities and city areas. In view of the simple, regional type concepts which these fourth-grade geographies attempt to provide, the emphasis on native life and on landscapes is probably not unreasonable. In contrast, the geographic value of large numbers of pictures of cities and city areas and commerce activities in the fourth-grade books is open to serious question.

In the fifth-grade books from 62 to 77 per cent of all pictures show (1) landscapes, (2) cities and city areas, (3) agricultural scenes, (4) commerce activities, and (5) agricultural processes. Compared with the fourth-grade books, the fifth-grade books generally place less emphasis on pictures of native life and native animals.

In the sixth-grade books from 58 to 71 per cent of the pictures show (1) cities and city areas, (2) native life, (3) landscapes, (4) commerce activities, and (5) agricultural scenes. Exceptions to the general practice for sixth-grade books is to be noted in Book F, with 10 per cent of its pictures showing manufacturing scenes, and Books B and E, with 11 and 10 per cent, respectively, of their pictures showing agricultural processes. Most of the pictures classified as commerce activities show ships, wharves, and related scenes. Because of the regional personality and other geographic concepts to be taught in the fifth and sixth grades, many of the pictures generally included in the textbooks for these grades are of questionable value.

When considering the distribution of pictures in the seventh-grade books, one must remember that certain of these books are, primarily, industrial geographies and that certain others complete the cycle of world-regions in this grade. From 52 to 63 per cent of the pictures in the seventh-grade books show (1) agricultural scenes, (2) commerce activities, (3) landscapes, (4) native life, and (5) agricultural processes. If pictures of manufacturing processes are added to these types, the percentage of pictures accounted for ranges from 59 to 66. Among the exceptions to the general practice for seventh-grade books are Books A, F, and H, with 12, 10, and 15 per cent, respectively, of the pictures showing native-life scenes; Book F, with 10 per cent showing human habitations, 12 per cent showing cities and city areas, and only 1 per cent showing manufacturing processes and 6 per cent commerce activities; Books B and G, each with 12 per

cent of the pictures showing manufacturing processes. In the final analysis differences in the fundamental organization of seventh-grade books in geography (that is, industrial or regional) are apparently reflected only slightly in the types of pictures included.

While the data of Table II reveal differences among the books for each grade, as well as differences among the several series of books, a more complete analysis of the differences between these textbook series is required. For this purpose each series was considered as a whole, and the percentage of pictures showing each of the fifteen major types of scenes or activities was determined. This procedure is valid only as a means of determining the relative emphasis given by the different authors and publishers to the types of pictures appearing in their books.

The data in Table III show that pictures of (1) landscapes, (2) native life, (3) cities and city areas, (4) agricultural scenes, (5) commerce activities, and (6) agricultural processes account for from 66 to 76 per cent of all the pictures included in each series. The first four of these six types of pictures account for approximately 50 per cent of all pictures. These data indicate that the majority of pictures in geography textbooks, regardless of the character of the organization, are limited to a few main types. Since a large proportion of the pictures is accounted for by a few major types, it is virtually impossible for one series to differ fundamentally from any other series in the types of pictures included.

Even though the several textbook series tend to agree in their inclusion of the same general types of pictures, the relative emphasis assigned to each differs considerably in some cases. In a comparison of the series the following differences were noted. Series A gives more emphasis than do any of the other books to special buildings. Series B devotes the largest proportion of pictures to agricultural processes. Series C and H stress native animals more than the other books and also have a fairly large number of miscellaneous pictures. Series E, with no seventh-grade book, has the smallest percentage of manufacturing scenes. Series F tends to emphasize human habitations more than the other books. Series G, with no fourth-grade book, has by far the smallest percentage of native-life scenes and the largest percentage of fishing activities and manufacturing scenes and proc-

TABLE III
RANKS OF FIFTEEN MAJOR TYPES OF PICTURES ACCORDING TO PERCENTAGE OF PICTURES IN ALL BOOKS
OF EIGHT GEOGRAPHY SERIES ILLUSTRATING EACH TYPE

TYPE OF ILLUSTRATION	SERIES A		SERIES B		SERIES C		SERIES D		SERIES E		SERIES F		SERIES G		SERIES H	
	Rank	Per Cent	Rank	Per Cent	Rank	Per Cent	Rank	Per Cent	Rank	Per Cent	Rank	Per Cent	Rank	Per Cent	Rank	Per Cent
1. Landscapes.....	1	16	4.5	11	1	17	1	17	1	17	1	17	4	10	2	15
2. Native life.....	2.5	13	4.5	11	3.5	11	3	12	3	14	4.5	10	6.5	6	1	20
3. Cities and city areas.....	2.5	13	3	11	3.5	11	5	10	4.5	11	3	14	2.5	14	6	7
4. Agricultural scenes.....	4	11	2	12	13	13	4	11	4.5	11	2	16	1	17	3	11
5. Commerce activities.....	5	10	1	13	5	10	2	15	2	15	4.5	10	2.5	14	4	9
6. Agricultural processes.....	6.5	6	6	10	9	4	6	6	6	8	6.5	7	9	5	6	7
7. Special buildings.....	6.5	6	13	2	12	3	9.5	4	12.5	2	14	1	14.5	1	13.5	2
8. Manufacturing scenes.....	8	5	10	4	7	6	12	3	12.5	2	8	5	6.5	7	11	3
9. Miscellaneous.....	9.5	4	13	2	6	7	14	2	12.5	2	14	1	14.5	1	6	7
10. Mining activities.....	9.5	4	8.5	5	9	4	8	4	9	3	9	4	9	5	11	3
11. Human habitations.....	12	3	8.5	5	12	3	12	3	7	5	6.5	7	11.5	3	8.5	5
12. Fishing activities.....	12	3	11.5	3	14.5	2	9.5	4	12.5	2	11.5	2	9	3	13.5	2
13. Lumbering activities.....	12	3	11.5	3	14.5	2	15	1	12.5	2	10	3	11.5	3	15	1
14. Native animals.....	14	2	13	2	9	4	12	3	12.5	2	14	1	13	2	8.5	5
15. Manufacturing processes.....	15	1	7	6	12	3	7	5	8	4	11.5	2	5	7	11	3
Total.....	.....	100	.....	100	.....	100	.....	100	.....	100	.....	100	.....	100	.....	100
Percentage for first four types.....	.....	53	.....	45	.....	52	.....	50	.....	53	.....	57	.....	47	.....	53
Percentage for first six types.....	.....	69	.....	68	.....	66	.....	71	.....	70	.....	74	.....	66	.....	69

esses. Series H stresses native-life scenes and native animals, has the smallest percentage of pictures of cities and city areas, and a fairly large percentage of miscellaneous pictures.

CLASSES OF PICTURES INCLUDED

Pictures in textbooks in geography should function as teaching materials and not as ornaments for the book. Their primary purpose is to serve as visual aids which will definitely help the children to understand the adjustments that people have made to their natural environments. While the geographic value of a picture depends largely on the use made of it, some pictures are potentially of greater value to the instructional situation than others.

Pictures that show cultural features with little or no indication of their natural setting, and pictures that show natural features with little or no indication of man's relation to them, have less to contribute to geographic training than those of cultural features in their natural setting. Such pictures, however, are useful in giving concepts of features which are involved in geographic relational ideas, and, if used to contribute to such ideas, they function helpfully in geographic training.¹

The distinction between cultural, natural, and cultural-natural pictures is of great significance to geographic instruction. Of these three classes of pictures, the latter is of greatest general value. Cultural-natural pictures show man's relation to his environment through (1) views showing man actually at work in his physical environment or (2) views showing the results of human adjustments to the physical environment. Pictures showing natural features with little or no indication of man's relation to them usually emphasize various land forms and are of value mainly in teaching concepts concerning such land forms. Pictures showing cultural features with little or no indication of their natural setting usually depict a wide range of cultural items, such as human habitations and special buildings, manufacturing scenes and processes, or native ornaments and products, and are of value only to the extent that they provide concepts necessary to the understanding of geographic relationships.

According to the data in Table IV, the fourth-grade geographies

¹ *The Teaching of Geography*, p. 163. Thirty-second Yearbook of the National Society for the Study of Education. Bloomington, Illinois: Public School Publishing Co., 1933.

TABLE IV

NUMBER AND PERCENTAGE OF CULTURAL, NATURAL, AND CULTURAL-NATURAL PICTURES INCLUDED IN EIGHT GEOGRAPHY SERIES

Book	TOTAL NUMBER OF PICTURES	CULTURAL PICTURES		NATURAL PICTURES		CULTURAL-NATURAL PICTURES	
		Number	Per Cent	Number	Per Cent	Number	Per Cent
Fourth grade:							
A.....	203	86	42	25	12	92	45
B.....	189	66	35	31	16	92	49
C.....	182	84	46	34	19	64	35
D.....	135	50	37	35	26	50	37
E.....	159	59	37	25	16	75	47
F.....	162	49	30	28	17	85	53
G.....							
H.....	379	169	44	71	19	139	37
Median...	182	66	37	31	17	85	45
Fifth grade:							
A.....	462	201	43	63	14	198	43
B.....	265	98	37	17	6	150	57
C.....	217	80	37	45	21	92	42
D.....	335	137	41	56	17	142	42
E.....	128	40	31	21	17	67	52
F.....	268	77	29	24	9	167	62
G.....	232	89	38	20	9	123	53
H.....	334	124	37	56	17	154	46
Median...	267	94	37	35	16	146	49
Sixth grade:							
A.....	551	306	55	49	9	106	36
B.....	321	163	51	7	2	151	47
C.....	232	94	41	24	10	114	49
D.....	262	120	46	20	8	122	46
E.....	163	79	48	8	5	76	47
F.....	201	75	37	10	5	116	58
G.....	227	98	43	9	4	120	53
H.....	428	210	49	50	12	168	39
Median...	247	109	47	15	7	121	47
Seventh grade:							
A.....	438	208	47	35	8	195	45
B.....	195	84	43	39	20	72	37
C.....	228	89	39	43	19	96	42
D.....	158	67	42	20	13	71	45
E.....							
F.....	162	36	22	15	9	111	69
G.....	201	74	37	26	13	101	50
H.....	339	168	50	52	15	119	35
Median...	201	84	42	35	13	101	45

TABLE IV—*Continued*

Book	TOTAL NUMBER OF PICTURES	CULTURAL PICTURES		NATURAL PICTURES		CULTURAL-NATURAL PICTURES	
		Number	Per Cent	Number	Per Cent	Number	Per Cent
All grades:							
A.....	1,654	801	49	172	10	681	41
B.....	970	411	42	94	10	405	48
C.....	859	347	40	146	17	306	43
D.....	890	374	42	131	15	385	43
E.....	450	178	40	54	12	218	48
F.....	793	237	30	77	10	479	60
G.....	660	261	40	55	8	344	52
H.....	1,480	671	45	229	16	580	39
Median...	875	361	41	113	11	425	46

generally include a larger percentage of natural pictures than the books for any other grade. However, in Series A, C, and E the largest percentage of natural pictures appear in the fifth-grade books and in Series B in the seventh-grade book. Among the fourth-grade books Series C has the largest percentage of cultural pictures, Series D the largest percentage of natural pictures, and Series F the largest percentage of cultural-natural pictures.

The fifth-grade books generally contain about the same proportion of cultural pictures as the fourth-grade books, but most of them have a smaller percentage of natural pictures and a larger percentage of cultural-natural pictures. Book A contains the largest percentage of cultural pictures, Book C the largest percentage of natural pictures, and Book F the largest percentage of cultural-natural pictures.

The sixth-grade books are generally characterized by a sharp decline in the percentage of natural pictures included and an increase in the percentage of cultural pictures. The proportion of cultural-natural pictures remains roughly about the same as the percentage for any other grade. Series A again has the highest percentage of cultural pictures, Series H has the largest proportion of natural pictures, and Series F again has the highest percentage of cultural-natural pictures.

The seventh-grade books have generally a smaller proportion of cultural pictures than the sixth-grade books but more than the fifth-

grade and the fourth-grade books. The percentage of natural pictures in the books for this grade is almost double that in the sixth-grade books and slightly less than the percentage in the fifth-grade and the fourth-grade books. The percentage of cultural-natural pictures is generally a little less in the seventh-grade books than in the books for any other grade except the fourth. Book H has the highest proportion of cultural pictures, Book B the highest percentage of natural pictures, and Book F the highest percentage of cultural-natural pictures.

In general, about three-eighths of the pictures in the fourth-grade and the fifth-grade geography books are cultural, one-sixth are natural, and slightly less than a half are cultural-natural. In the sixth-grade and the seventh-grade books, the proportions of cultural pictures are about equal to the percentages of cultural-natural pictures, the percentages being slightly less than 50. On the whole, uniformity of practice is lacking in the proportion of each major class of pictures contained in the several books of the series.

The data for all grades show that Series A contains the largest percentage of cultural pictures, Series C the largest percentage of natural pictures, and Series F the largest percentage of cultural-natural pictures. In every series except Series A and H, the proportion of cultural-natural pictures exceeds the proportion of cultural pictures. On the whole, approximately one-tenth of all pictures depict natural phenomena, slightly more than two-fifths show cultural phenomena, and the remainder, generally less than a half, show cultural-natural phenomena.

LEGIBILITY AND ATTRACTIVENESS OF PICTURES

Factors closely related to the types of geography pictures included are legibility and attractiveness. Unless the photographic and mechanical qualities of the picture are such that all significant features are clearly shown, the picture is probably of little value in geographic instruction. Furthermore, the picture should possess merit as an attractive photograph.

Standards of legibility and attractiveness are lacking, but in this study a number of observations were made. A rather large proportion of the pictures are blurred and vague. Even careful scrutiny

fails to identify the features included in many pictures. Other pictures are so small and crowded with details that recognition of the significant geographic features is impossible. Still other pictures have been taken at such great distances or with such improper focus that they also lack legibility. To some extent the lack of legibility may be traceable to flaws or inadequacies in the plate-making and printing processes rather than to the quality of the original photographs.

No book was entirely free from illegible or unattractive pictures. On the whole, Series A, C, D, E, and G contain the most legible pictures. Series B and F contain the largest proportions of illegible pictures. Series H appears to hold an intermediate position in the legibility of the pictures.

UP-TO-DATENESS OF PICTURES

Still another factor remains to be considered. Even though a picture shows highly significant geographic relations in a legible and attractive manner, it may be practically worthless because it is out of date and no longer a truthful presentation of the current situation. Without authentic records indicating where and when a picture was taken, it is almost impossible to determine accurately the up-to-dateness of the pictures in geography textbooks. A recent copyright date may mean nothing. Many of the pictures in the books under consideration are clearly out of date. Among the telltale marks of an old picture which children frequently notice are the following: (1) extremely old models of automobiles, aeroplanes, trains, and machinery; (2) men and women dressed in the styles of previous decades; (3) city skylines of past years (for example, New York without the Empire State Building); and (4) obsolete ways of doing things. The age of many pictures will be detected only by the children who live in areas immediately adjacent to the scenes pictured. If a book is widely used throughout the entire nation, however, the impression of out-of-dateness of the pictures will be equally widespread because children in each area will notice some out-of-date pictures. From an educational point of view an out-of-date picture can misinform the pupils as well as old or faulty text material. Every author and publisher of textbooks in geography, in which pictures are a prominent

and an essential part of the instructional materials, has a professional obligation to keep the pictures in the books up to date.

None of the books examined is entirely free from some definitely out-of-date pictures. Although no exact count was made, the books of Series A appear to contain the smallest number of out-of-date pictures. The books of Series C, D, G, and H also contain a relatively small proportion of pictures which are out of date. Series E holds a somewhat intermediate position, and Series B and F contain the largest proportions of definitely out-of-date pictures.

Another measure of the up-to-dateness of the pictures, as well as of other materials, can be applied whenever a geography series has passed through several editions. A comparison of the current edition with the previous editions will show the extent of revision and the up-to-dateness of the materials. Obviously, certain types of pictures need not be revised, since they remain the same from decade to decade. For example, a ten-year old picture of Mt. McKinley or of a zebra is probably as satisfactory today as at the time of its first appearance. In contrast, a picture of the city of San Francisco or of New York taken ten years ago is no longer valid as an up-to-date picture of either of these city areas. As a part of this study, a comparison was made between the current and previous editions of the books of Series F and H. The latter had been thoroughly and completely revised, and a large proportion of the pictures which would go out of date had been replaced by more recent pictures. Series F, however, had been revised but slightly, and, with but few exceptions, the pictures were from six to eleven years of age.

SUMMARY AND CONCLUSION

The data of this study appear to warrant the following summary of findings. (1) Pictures account for from 20 to 25 per cent of all materials included in textbooks in geography for the various grades. (2) Uniformity with respect to the number, the size, and the frequency of occurrence of pictures in the various grades is generally lacking in geography textbooks. (3) Approximately two-thirds of all pictures in geography textbooks are limited to six major types of scenes or activities, many of which are of questionable educational value in terms of the basic geographic concepts to be taught in the

grades to which the pictures are assigned. (4) The types of pictures chosen to illustrate geography textbooks apparently have little or no relation to the fundamental organization of materials within each textbook series. On the whole, the pictures appear to have been selected largely on the basis of tradition, expediency, and ease of procurement. (5) In view of the geographical concepts to be taught, it appears that series of textbooks in geography, considered as a whole, contain too large a proportion of cultural pictures and too small a proportion of cultural-natural pictures. (6) While no quantitative data are available, it was noted that many of the pictures in each book are concerned with geographic relationships that are relatively insignificant phases of the total adjustment made by people to their physical environment in the region with which the pictures deal. (7) Some pictures in each of the textbooks examined are illegible and unattractive, but certain series appear to be distinctly superior in the general legibility and attractiveness of their pictures. (8) Some pictures in each geography textbook tend to be out of date and no longer accurate representations of the phenomena pictured, but certain series contain a decidedly higher proportion of definitely up-to-date pictures.

Interpretation of the data of this study must proceed with extreme caution since definite criteria or standards for pictures in geography are lacking. No one knows with certainty the optimum size of a picture; the most desirable frequency of occurrence; the proportion of the book which should be used for pictures; the most desirable balance, for each grade and for the textbook series as a whole, between the different major types of scenes or activities; or the optimum proportion of cultural, natural, and cultural-natural pictures for each grade and textbook series. Nor can one judge with finality the relative legibility or attractiveness. This report, however, indicates something of the possibilities inherent in a detailed study of one factor highly important in a consideration of textbooks in geography. Techniques and procedures similar to those employed in this study may readily be used in the evaluation of textbooks on the basis of other factors.

SELECTED REFERENCES ON PUBLIC-SCHOOL ADMINISTRATION. I

WILLIAM C. REAVIS AND NELSON B. HENRY
University of Chicago

This article contains selected references in the field of public-school administration classified under (1) general administration, (2) state school administration, (3) city school administration, and (4) supervision. References classified under (5) teaching staff, (6) school finance, (7) business management, and (8) public relations will be published in the February number of this journal. The period covered in the selection of the references is, with a few exceptions, November 1, 1934, to October 31, 1935.

GENERAL ADMINISTRATION

1. ACKLEY, CLARENCE E. "Contributions of the Courts to the Cause of School Administration," *American School Board Journal*, XC (June, 1935), 15-17; XCI (August, 1935), 18-20, 58; (October, 1935), 25-27.

Traces genetically the rise of school administration through cases carried to the courts; gives the interpretations of the courts with respect to the nature of the public-school systems established by the several states; and interprets the court decisions bearing on the corporate character of school districts in the several states, comparing the status of school corporations with that of municipal corporations.

2. BRYSON, LYMAN. "When Adults Come to Public School," *Nation's Schools*, XV (March, 1935), 17-18.

Suggests that existing school facilities should be made readily available for adult-education programs. The author believes, however, that the public cannot now afford to support a comprehensive system of adult education.

3. CHAMBERS, M. M. (Editor). *The Third Yearbook of School Law*, 1935. Washington: M. M. Chambers (722 Jackson Place), 1935. Pp. 120.

Presents a critical discussion of statutory law in the United States and a compilation of court decisions in the several states bearing on the organization and administration of public schools.

4. *Creating Social Intelligence—A Descriptive Bibliography*. Research Bulletin of the National Education Association, Vol. XIII, No. 3. Washington: Research Division of the National Education Association, 1935. Pp. 71-160.

A brief characterization of each of 265 experimental undertakings reported in various educational journals during the past seven years. The articles pertain to undertakings in the fields of adult education, guidance, social-studies curriculums, student self-government, etc.

5. GOODYKOONTZ, BESS. "Education of Uncle Sam's Tenants," *School Life*, XX (May, 1935), 209-10.

An explanation of the need for educational opportunities for children on 148 federal projects in seventeen states. The author estimates that a half-million dollars would be required to make adequate provision for the schooling of these children.

6. HART, FRANK W. "The School-Community Survey," *Educational Method*, XIV (May, 1935), 430-34.

Presents a comprehensive outline for a school-community survey.

7. HENRY, NELSON B. "Gubernatorial Guidance in State Textbook Adoption," *Nation's Schools*, XIV (November, 1934), 37-39.

Describes the actions and experience of a state textbook commission under the domination of the governor who appointed the commission.

8. *Modern Social and Educational Trends*. Research Bulletin of the National Education Association, Vol. XII, No. 5. Washington: Research Division of the National Education Association, 1934. Pp. 243-88.

A discussion of the necessity for bringing the schools more closely into harmony with social purposes and needs. Contains factual material and numerous helpful references with respect to such topics as population, occupations, wealth and income, government activities, and leisure-time activities.

9. MORRISON, HENRY C. "What Are the Limits of Public Education?" *National Municipal Review*, XXIV (February, 1935), 97-99.

A plea for rational consideration of the limits of tax-bearing ability in the development and administration of programs of public instruction.

10. NELSON, A. H. "Effects of the Depression on Textbooks Provided in the Schools," *Elementary School Journal*, XXXVI (September, 1935), 17-25.

Explains how recent retrenchment measures have restricted publishers in their work of providing a suitable variety of textbook material for use in the schools.

11. NORTON, JOHN K. "Looking Ahead toward Educational Recovery," *Official Report of the Department of Superintendence*, 1935, pp. 150-56. Washington: Department of Superintendence of the National Education Association, 1935.

Reviews briefly the activities of the Joint Commission on the Emergency in Education appointed by the Department of Superintendence and the National Education Association in 1933 and indicates the general direction in which educational progress can and must be made.

12. NORTON, JOHN K. "Future Development of Public Education," *National Municipal Review* XXIV (February, 1935), 100-104, 113.
An argument for more adequate support for schools in view of the obvious need for a more extensive educational program than now exists.
13. OSBURN, W. J. "What Next in School Administration?" *Educational Administration and Supervision*, XXI (February, 1935), 107-14.
Advocates a new technical vocabulary of single-valued words as a basis for a new and more genuine science of school administration.
14. *School Organization*. Review of Educational Research, Vol. IV, No. 4. Washington: American Educational Research Association of the National Education Association, 1934. Pp. 353-444.
Summarizes the findings of research investigations in school organization between June 1, 1931, and July 1, 1934.
15. *The School Plant*. Review of Educational Research, Vol. V, No. 4. Washington: American Educational Research Association of the National Education Association, 1935. Pp. 333-440.
A summary of researches pertaining to school buildings, playgrounds, equipment, apparatus, and supplies, covering the period since July, 1932.
16. STRAYER, GEORGE DRAYTON. "Educational Leadership in a Troubled World," *Teachers College Record*, XXXVI (March, 1935), 478-89.
A plea for effective consolidation of educational forces for the purpose of securing more adequate support for the public schools.
17. STUDEBAKER, JOHN W. "Government's Interest in Youth," *School Life*, XX (April, 1935), 177-78.
Explains the origin and purposes of the proposal for a Division of Youth Service in the United States Office of Education. As contemplated, this agency would study the position of youth under present conditions and co-operate in devising a constructive program of education and guidance to meet the situation.
18. WHIPPLE, GUY MONTROSE. "Needed Investigations in the Field of the Textbook," *Elementary School Journal*, XXXV (April, 1935), 575-82.
A stimulating discussion of ten problems pertaining to the use of textbooks in instruction.

STATE SCHOOL ADMINISTRATION

19. ANDERSON, WILLIAM. *The Units of Government in the United States*. Public Administration Service Publication No. 42. Chicago: Public Administration Service (850 East Fifty-eighth Street), 1934. Pp. vi+38.
An authoritative report on the number and variety of units of local government in the United States, including units organized for the support and administration of public schools. In Parts II and III the author presents his interpretation of the most desirable size and number of local governmental units.

20. BOLMEIER, E. C. "Recent Tendencies in Taxation for Public-School Support," *Elementary School Journal*, XXXV (February, 1935), 415-22.
Summarizes tax legislation in 1933 and 1934, indicating particularly trends with respect to property-tax limitation measures, new types of taxes contributing to school support, and increased state aid.
21. BRISCOE, ALONZO OTIS. *The Size of the Local Unit for Administration and Supervision of Public Schools*. Teachers College Contributions to Education, No. 649. New York: Teachers College, Columbia University, 1935. Pp. xiv+110.
Reveals the influence of size of administrative unit on (1) the ability of the unit to secure skilled and continuous educational leadership, (2) the economical use of the time of the leaders employed, and (3) the economical use of the funds spent for general control. The findings have an important bearing on future state policy with respect to units of school support and control.
22. CAVINS, L. V. "Organization and Operation of the County Unit in West Virginia," *The Application of Research Findings to Current Educational Practices*, pp. 236-42. Official Report of the American Educational Research Association, 1935. Washington: American Educational Research Association of the National Education Association, 1935.
Gives an account of the adoption of the county unit in West Virginia and generalizes on the virtues of the county organization for school administration and support.
23. CHAMBERS, M. M. "Along the Firing Line for Fiscal Independence," "School Finance Legislation of 1935," "States Make Changes in School Administration," "New Legislation Affecting Personnel," *Nation's Schools*, XVI (July, 1935), 17-18; (August, 1935), 23-25; (September, 1935), 34-35; (October, 1935), 29-30.
Summary and interpretation of recent legislation and court decisions pertaining to the topics specified.
24. "Conference on State School Legislation and Long-Time Educational Planning, December 11, 12, 13, 1934, Washington, D.C." Washington: National Education Association, 1934. Pp. 34 (mimeographed).
An important report of the findings of four committees on needed measures for improving state educational programs. The reports deal with both financial and non-financial problems.
25. CYR, FRANK W., and KOBAL, ANDREW. "Legal Responsibilities of the County Superintendent in the United States," *American School Board Journal*, XCI (September, 1935), 25-27.
Presents a tabulation of the statutory duties of county superintendents of schools in the forty-eight states. Discusses the major functions of this school officer in educational administration.

26. EULER, HARRISON LESLIE. *County Unification in Kansas*. Teachers College Contributions to Education, No. 645. New York: Teachers College, Columbia University, 1935. Pp. 92.

The author of this study has attempted to establish guiding principles for the unification of small counties in Kansas through an analysis of an attempted consolidation of three counties and a comparison of other cases recorded in the literature in the field. The findings have general value for states having conditions approximating those found in the area studied.

27. GARBER, LEE O. *Education as a Function of the State*. Educational Monographs, No. 3. Minneapolis, Minnesota: Educational Test Bureau, Inc., 1934. Pp. viii+100.

An exhaustive survey of constitutional debates and court decisions with reference to the relation of the state to education.

28. GAUMNITZ, W. H. *Economies through the Elimination of Very Small Schools*. United States Office of Education Bulletin No. 3, 1934. Pp. vi+54.

An informative bulletin regarding the prevalence of small schools in different sections of the United States. Relation of unit costs to size of school and methods of eliminating small schools are discussed.

29. LELAND, SIMEON E. *The Fiscal Problem of Education in Illinois*. Springfield, Illinois: Du Page Valley Division of the Illinois State Teachers Association, 1935. Pp. 34.

An illuminating discussion of several phases of the problem of financial support of the public-school system in Illinois. The author considers that Illinois is below its proper level in the matter of school support because of (1) an archaic form of school administration, (2) the selfish interest of numerous school officials, (3) the failure of the state office of education to supply educational leadership primarily concerned with the advancement of education, and (4) the local support of education under an antiquated tax system with inadequate state aid and no sharing of state collected revenues.

30. LITTLE, HARRY A. *Potential Economies in the Reorganization of Local School Attendance Units*. Teachers College Contributions to Education, No. 628. New York: Teachers College, Columbia University, 1934. Pp. vi+78.

Estimates, on the basis of actual survey findings in 223 counties, the potential economies which might be effected in school expenditures through the reorganization of local attendance units.

31. MORPHET, EDGAR L., and OTHERS. *The Equalization of Educational Opportunity in Alabama*. Bulletin No. 13. Montgomery, Alabama: Division of Research and Information, State Department of Education, 1934. Pp. 46.

A general discussion of the purposes of equalization and methods of calculating the appropriate contributions to be made by the county to city school districts.

32. *The Nation's School Building Needs*. Research Bulletin of the National Education Association, Vol. XIII, No. 1. Washington: Research Division of the National Education Association, 1935. Pp. 36.
An analysis of the needs for school buildings in terms of recent trends in construction and the relation of construction to the actual needs of the schools since 1918.
33. REAVIS, WILLIAM C. "Federal Participation in Public Education in Illinois in 1933-34," *Elementary School Journal*, XXXV (January, 1935), 349-58.
A summary of the measures and contributions employed by the federal government during 1933-34 to aid the public schools in the state of Illinois. The author believes that superintendents and school systems have been stimulated rather than restrained by their relations with many of the projects sponsored by the federal agencies.
34. TENNESSEE EDUCATIONAL COMMISSION. *Report of the Tennessee Educational Commission*. Part I, Facts Regarding Public Education and Resulting Problems, pp. xxx+362; Part II, Recommendations Affecting Public Education in Tennessee, pp. xx+132. Nashville, Tennessee: Tennessee Educational Commission, 1934.
A comprehensive survey of a state school system and appropriate recommendations concerning a number of the more important educational problems of that state.
35. WERNER, J. C. "State Fire-Insurance Fund Provisions," *American School Board Journal*, XC (April, 1935), 22-23.
States and discusses briefly twelve principles which should be considered in framing legislation for state insurance of public property.
36. WITHAM, ERNEST C. "Types of School Administration in the Middle Atlantic States" and "Types of School Administration in the North Central States, Eastern Section," *American School Board Journal*, XC (March, 1935), 19-21, 75; XCI (October, 1935), 19-20, 77.
Describes the administrative organization of schools in seven states: Pennsylvania, West Virginia, Maryland, Virginia, Kentucky, Michigan, and Illinois.

CITY SCHOOL ADMINISTRATION^{*}

37. BAIR, FREDERICK HAIGH. *The Social Understandings of the Superintendent of Schools*. Teachers College Contributions to Education, No. 625. New York: Teachers College, Columbia University, 1934. Pp. vi+194.
An analytical study of the superintendent of schools as an agent in relating education by way of cause and control to social change. Presents an excellent generic portrait of the superintendent of schools.
38. "California Spends Millions to 'Earthquake-Proof' School Buildings," *American School Board Journal*, XC (January, 1935), 52, 59-60, 62.
This article discusses an emergency problem in school-building remodeling and construction created in California by new legislation designed to protect school

^{*} See also Item 35 in the list of selected references appearing in the January, 1936, number of the *School Review*.

children from the hazards of earthquakes. The article reports the progress being made in several cities to comply with the requirements of the law.

39. COMSTOCK, LULA MAE. *Per Capita Costs in City Schools, 1933-34*. United States Office of Education Pamphlet No. 61 (1935). Pp. 20.
Valuable statistical material pertaining to city schools classified according to population of the cities.
40. EGINTON, DANIEL P. "The Administrator's Main Job," *Journal of Education*, CXVIII (April 1, 1935), 186-87.
Stresses the importance of the administrator's responsibility for the development of professional workers in his organization.
41. FOWLKES, JOHN GUY. "The Superintendent and the Business Manager: Their Relation to Each Other and to the Board of Education," *Official Report of the Department of Superintendence, 1935*, pp. 236-38. Washington: Department of Superintendence of the National Education Association, 1935.
Proposes ten principles for the regulation of the official relations of the superintendent of schools and the business manager in city systems and discusses the relation of these officials to the board of education.
42. FOWLKES, JOHN GUY. "The Preparation of the School Budget," *American School Board Journal*, XC (June, 1935), 19-20, 73.
Enumerates ten basic considerations in the preparation of the school budget and discusses the major responsibilities of the school superintendent with respect to the school budget.
43. GILLAND, THOMAS McDOWELL. *The Origin and Development of the Power and Duties of the City-School Superintendent*. Chicago: University of Chicago Press, 1935. Pp. xiv+280.
Provides an illuminating treatment of the development of the superintendency and the order in which professional duties were acquired. The findings are based on the annual reports and school-board proceedings of thirty cities.
44. HENRY, NELSON B. "Public Schools," *What the Depression Has Done to Cities*, pp. 46-50. Chicago: International City Managers' Association (850 East Fifty-eighth Street), 1935.
An effort to indicate both the losses sustained and the beneficial effects resulting from economy measures adopted by city-school systems during the depression.
45. MOEHLMAN, ARTHUR B. "Widening the Uses of the School Plant," *Nation's Schools*, XIV (December, 1934), 40-44.
Increasing demands on the school plant are cited as evidence of the need for larger and more attractive school sites, as well as for improved school buildings in the future. Health education, the fine arts, library activities, etc., require more careful planning with respect to the future demands on the school plant.

46. MOORE, CLYDE B. "Some Functions and Responsibilities of a Board of Education," *American School Board Journal*, XC (February, 1935), 15-16.
States succinctly the essential functions of the board of education in the city school system and indicates its relation with executive officers.
47. PIERCE, PAUL REVERE. *The Origin and Development of the Public School Principalship*. Chicago: University of Chicago Press, 1935. Pp. x+224.
Traces the genetic development of the public-school principalship and discusses the order of development of the major duties assigned to principals and the conditions which gave impetus to them. The study provides the first authentic picture of the development of the principalship and furnishes criteria for the evaluation of duties performed by present-day principals.
48. PUCKETT, ROSWELL C. "An Aid in Schedulmaking," *American School Board Journal*, XCI (August, 1935), 30.
Illustrative forms are presented for the use of officials in the preparation of high-school schedules.
49. RELLER, THEODORE LEE. *The Development of the City Superintendency of Schools in the United States*. Philadelphia, Pennsylvania: Theodore Lee Reller (% School of Education, University of Pennsylvania), 1935. Pp. xviii+340.
Treats the development of the city superintendency in the United States as revealed through state statutes, city ordinances, school-board rules, and the personal contributions of the superintendents who pioneered in the field.
50. SEARS, JESSE B. "Rules and Regulations for the Government of City School Systems," *Educational Administration and Supervision*, XXI (March, 1935), 175-206.
A summary of research reports dealing with school-board rules and regulations. Considers the function of the rulebook, its preparation, and revision. Includes an extensive annotated bibliography.
51. TOWNER, EARL M. "The Formal Rating of Elementary-School Principals," *Elementary School Journal*, XXXV (June, 1935), 735-46.
A report of an inquiry concerning the extent and the methods of rating elementary-school principals in 117 cities with populations of 50,000 or more.
52. WRIGHTSTONE, J. WAYNE. *Appraisal of Newer Practices in Selected Public Schools*. New York: Teachers College, Columbia University, 1935. Pp. viii+118.
Reports the findings of a study carried on in four schools under the direction of the Institute of School Experimentation, Teachers College, Columbia University, to ascertain and evaluate new practices in subject-matter fields in elementary and secondary schools.

SUPERVISION¹

53. BARRETT, S. M. "Supervision in Kansas City, Missouri," *American School Board Journal*, LXXXIX (October, 1934), 14.
Defines relations of special and general supervisors in Kansas City and describes briefly the types of supervisory methods employed.
54. EVANS, RUTH. "Effective Supervision in Public Schools," *Journal of Health and Physical Education*, VI (October, 1935), 22-23, 56-57.
Considers nature and scope of classroom supervision and briefly discusses the techniques of supervisors.
55. HIMMELREICH, W. F. "A Supervisory Program for a Small School System" and "Supervisory Objectives and Techniques in a Smaller City," *American School Board Journal*, XC (April, 1935), 25-26, 76; XCI (October, 1935), 17-18.
Presents the program of supervision used by the superintendent of a small school system. States the objectives of supervision in elementary and secondary schools and summarizes the techniques employed.
56. HUDNALL, J. MAYES. "A State Policy for Supervision in Delaware," *American School Board Journal*, XC (May, 1935), 14, 77-78.
States the theory of supervision underlying the program in Delaware and describes briefly the operation of the program in elementary and secondary schools.
57. HULLFISH, H. GORDON. "Co-operative Supervision as an Answer to 'Why the Supervisor?'" *Educational Administration and Supervision*, XXI (September, 1935), 421-30.
Discusses purposes and methods of supervision in terms of the social aims of education.
58. MANAHAN, JOHN L., and JARMAN, A. M. "A Comparison of Superior and Inferior Teachers," *American School Board Journal*, XC (April, 1935), 23-24.
Presents a scale for the evaluation of teachers and reports ratings of seventy-eight inferior and seventy-eight paired superior teachers.
59. SOUTHALL, MAYCIE. "Supervisor's Relation to Improvement of Materials of Instruction," *Materials of Instruction*, pp. 149-83. Eighth Yearbook of the Department of Supervisors and Directors of Instruction of the National Education Association. New York: Teachers College, Columbia University, 1935.
Sets forth the relation of the supervisor to the improvement of instructional materials as reported by sixty representative supervisors.
60. WILEY, WILL E. "Supervision as a Person-Process," *American School Board Journal*, XC (March, 1935), 17-18.
Discusses the functions of supervision and presents a scale for the evaluation of success in teaching reading.

¹ See also Item 41 in the list of selected references appearing in the January, 1936, number of the *School Review*.

Educational Writings

REVIEWS AND BOOK NOTES

The reflection of social forces in the attitudes of educational leaders.—In Part X of the Report of the Commission on the Social Studies,¹ Professor Curti has undertaken to assemble and analyze the social ideas of certain men and women whose rôles in American education appear to have been significant and to ascertain, in so far as possible, the relation between their ideas and the economic, religious, philosophical, and political factors of their day. No attempt has been made to measure the effectiveness or extent of the influence of their ideas, but in these pages there are many indications of the limitations that have militated against the effective realization of the ideas.

Colonial education, the author finds, was molded by the class and the religious conceptions of that day. There was a virtual identity between the dominant religious group and the ruling class in New England and in other sections of the country; and, whether consciously or not, educational leaders by their support of "established institutions" in reality took "sides against the underprivileged" (p. 21). Though, in general, there existed no "explicit entente between religion and the economically dominant class" (pp. 15-16), the author thinks it likely that "persons of substance believed servants less prone to give trouble when imbued with the moral principles of Christianity through schooling in the Bible and the catechism" (p. 7); and, certainly, the assurance of the Bishop of London to slave-owners, that Christianity would not only not relieve men from the duties of their "Station and Condition" but would strengthen their "Obligations to perform those Duties" by cultivating in them a "Fear of Men" and an "Expectation of a Future Account" (p. 7), must have tended to allay the doubts of planters, if they had held the view that the Christian clergy was likely to lead the underprivileged to revolt against their condition. In passing, it may be noted that the propaganda among Quakers for manumission of slaves and their education, as well as the writing and the practical, organized educational work of a man like Benezet, might well have been dealt with more fully, since, among them, Christianity seems to have given considerable impetus toward an improvement of the lot of the underprivileged blacks.

Two hundred years after the founding of Jamestown, the author states, the

¹ Merle Curti, *The Social Ideas of American Educators*. Report of the Commission on the Social Studies of the American Historical Association, Part X. New York: Charles Scribner's Sons, 1935. Pp. xxii+614. \$3.00.

schools still reflected the class prejudices and the religious interests of Colonial society, notwithstanding the growth of secular tendencies and the advent of a new political order. There were differences, however. Of particular significance, Professor Curti notes, was the rise of an element of criticism in the early nineteenth century with respect to existing pedagogy, a survival of education which had been fitted to the society of Colonial days but was not in harmony with the democratic experiment. From this point onward, the author deals more systematically with the conflicts that marked the period of the rise of common state school systems and with the claims that were made, equally readily it seems, for education as a reformative and as a conservative force, as a corrective of present evils and as a preventive of those that might come. From among those who took part as creators and capable promoters of public education or who as critics, theoreticians, and scientists devoted themselves to its problems, Curti selects for more or less extensive treatment Mann, Barnard, Willard, Catharine Beecher, Mary Lyon, Booker T. Washington, Curry, Harris, Spalding, Parker, Hall, James, Thorndike, Dewey, and several others. In the period since the World War some space is given to the views of Russell, Judd, Strayer, Kilpatrick, Counts, Snedden, and men of like prominence, whose social interpretations of education have been most pronounced.

It would be a work of supererogation to restate the social biases revealed in the analysis of each of these men, or even a small proportion of them; and to single out a few for mention would probably be misleading. The reviewer must be content with a few observations and urge all who can borrow, buy, or purloin a copy of this book to read it for themselves; for, although much of the subject matter may not be novel, most readers will find interpretations of it which should prove useful. Useful and enlightening the book should be to those who would command the sun to stand still or to those who are prone to mistake the afterglow for Aurora; and to those who hope to see a new day, the book ought to give a clearer understanding of the basic conditions that postpone its advent.

Naturally, no one acquainted with our educational history will be surprised to find that, when the educators of the past century are stood on their heads, very little money falls out of their pockets. Coin jingled in the jeans of some, though few. Nevertheless, as a class, Professor Curti finds the educators of the past a conservative lot, generally, though not universally, sensitive to the interests of the economically dominant class, and influenced more by the dominant economic forces of the day than by "religion, humanitarianism, philosophy, and science" (p. 588). Neither the Hegelianism of Harris, the Darwinism of Hall, the Catholicism of Spalding, nor the scientific objectivity of Thorndike leads to radicalism when questions of capital and labor are involved. The schools have time and again been sidetracked from important social questions and, on occasion, have been stimulated to work along very dubious lines, even by the most liberal educators. It is shown that many leaders have been illogical and confused in their thinking or that timidity and expediency have induced them to

turn their backs on controversial issues which greater courage and independence would have led them to face. This discrepancy between thinking and acting can in many, perhaps most, instances be charitably charged to the lack of an integrated philosophy of education, in keeping with basic principles of self-government; in other cases, it seems clear, there has been a failure of courage to follow the argument wherever it leads, regardless of special interests.

Professor Curti's contribution to this valuable series of investigations on the social studies, sponsored by the American Historical Association, is marked by a judicious temper, is carefully and adequately documented, is well written and well printed. The selections are generally excellent, though, naturally, other choices might be made. Few errors have been noted. There are, besides footnote citations, bibliographical notes on manuscript collections, periodical literature, official educational reports, the writings of educators discussed, and secondary works. The usefulness of the book is enhanced by an adequate index.

THOMAS WOODY

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Curriculum and procedures in the elementary school.—A recent book typifies better than any I have seen the present limitations in attitude and understanding of many educators toward the changes taking place in elementary education. The author sees in part and senses in larger measure the significant trends involving curriculum principles and procedures. He tries to grasp the meaning of these trends in terms of the larger changes taking place in American society. Neither his vision nor his courage is, however, quite equal to the task; after a bold start he develops his thesis as a defense of the subject organization of the elementary school with such minor concessions to essential principles as can be made without destroying the sanctity of the several subjects.

His ideal curriculum is "a social core composed of the fused elements of geography, nature study, history, and health knowledge and training, adapted to the children's needs and interests, together with separate studies in reading, language, numbers, art, and music" (p. 91).

He devotes two chapters to "orientation, integration, and differentiation" in the curriculum, but much of this treatment is little more than a discussion of correlation under new terminology. As "curriculum objectives" he sets up "social efficiency," "play-life efficiency," and "fundamental processes." To the second of these objectives he devotes a chapter without clearly perceiving that he is discussing a means rather than an objective. He includes much illustrative material under the guise of projects and activities, but always these are subordinate to the subject organization of the curriculum. While he includes elementary science as part of his "social core," he does not make clear that the great social changes in American life have their foundations in the practical ap-

* Herbert G. Lull, *Principles of Elementary Education*. New York: W. W. Norton & Co., Inc., 1935. Pp. x+532. \$2.50.

plications of science to everyday life. His science is primarily a socialization of nature study.

It would be fatal to accept this book as the needed treatment of the fundamental changes taking place in elementary education. On the other hand, it would be unfair to pronounce it "neither fish nor fowl." Even though the author's grasp falls short, his reach commands respect. Lull senses the need for a socialization of the school program in harmony with the processes of social change in American life, and he gives many valuable suggestions on how the several subjects may contribute to this larger objective. To illustrate his proposals, he has included a considerable body of useful material in the form of educational case records, reports of activities and projects, and course-of-study materials from the several subjects he would include in the school curriculum. Finally, throughout, there are glimpses of his larger vision, for example, his idea that social progress does not just happen, that there is no benevolent fate shaping the ways or ends of society.

J. CAYCE MORRISON

ASSISTANT COMMISSIONER FOR ELEMENTARY EDUCATION
NEW YORK STATE EDUCATION DEPARTMENT

The development of reading instruction in America.—During the last twenty-five years the amount of published literature relating to reading has increased with surprising rapidity. For the most part, the materials published have been reports of scientific studies or discussions of the organization and methods of teaching reading in elementary schools. Only rarely have comprehensive reports of the history of reading in America been prepared. The book by Smith¹ concerning the development of reading instruction in America is, therefore, very timely, and it provides a body of significant information for teachers and supervisory officers.

The author's preliminary study revealed the fact that instruction in reading has, at various periods in our history, reflected directly the changing social, political, religious, and cultural needs of a growing and progressive nation. Accordingly, she organized her discussions primarily in terms of six major periods of emphasis in reading instruction which have differed to a greater or less extent in purpose, content, and methods. In addition she considers current trends and points out probable changes or significant emphases in the near future.

The six periods into which the history of reading instruction in America has been divided are presented in chapters ii-vii, inclusive. Chapter ii is entitled "The Period of Religious Emphasis in Reading Instruction." It shows clearly that reading activities in early Colonial days were dictated largely by the religious motives of the colonists. These motives also permeated the activities of the

¹ Nila Banton Smith, *American Reading Instruction: Its Development and Its Significance in Gaining a Perspective on Current Practices in Reading*. Newark, New Jersey: Silver, Burdett & Co., 1934. Pp. x+288. \$1.96.

school and determined to a large extent the purpose, content, and methods used in teaching reading. The period was also characterized by excessive emphasis on oral reading and memorization.

The second period, which is described in chapter iii, was characterized by a nationalistic-moralistic emphasis in reading materials. Whereas prior to the Revolution the church had been chiefly concerned with inculcating religious convictions, the major aim of the state beginning in 1776 was to promote solidarity and national unity. The development of this interest brought new motives for reading among adults. It also influenced to a large extent the content of school-books. Furthermore, the prevailing wide use of oral reading was supplemented by strong emphasis on elocutionary delivery, the chief motive of which was to stimulate patriotism in young Americans. Increased emphasis was also given at this time to such matters as enunciation and articulation.

Chapter iv discusses the so-called "Period of Emphasis upon German-Pestalozzian Principles." By 1840 the early effort to cultivate loyalty had begun to subside. Both educators and civic leaders now emphasized the urgent need of preparing the great mass of the people for intelligent citizenship. Because of the influence of Pestalozzian principles wider use was made of selections providing general information from the fields of science, geography, and history. Increased emphasis was also given to the need for intelligent interpretation. In harmony with this demand, the word method, as contrasted with the alphabet method, of teaching reading became increasingly popular.

About 1880 a new interest began to express itself and laid the foundation for "The Period of Emphasis upon Reading as a Cultural Asset," which is discussed in chapter v. The new movement was heartily approved by the followers of Herbart, who attached large significance to the value of history and literature in school activities. From 1880 to about 1918 the literary ideal largely determined the content and methods of teaching reading in public schools.

The fifth period, described in chapter vi, placed great emphasis on reading as a utilitarian asset. The dominant aim of the period was to meet the practical needs of life. Wide use was made of the results of scientific studies in improving silent-reading habits, particularly those relating to rate and comprehension. The period continued for about a decade, ending in 1925.

The final period described by Smith is characterized by emphasis on "broadened objectives in reading." This period was influenced widely by the *Report of the National Committee on Reading*. The primary objectives during this period were to extend experience, to stimulate the thinking powers of boys and girls, and to elevate tastes. The amount of time reserved for systematic instruction in reading was greatly reduced, and increased guidance in the various forms and applications of reading was provided in different school subjects and activities.

Chapter viii, entitled "In Prospect," discusses "The New Spirit" in teaching reading. In this connection Smith points out that the methods and materials used should vary in harmony with the varied interests and maturity of the pu-

pils; that the period of informal reading activities which characterize the beginning stages of learning to read should be extended; that much of the material used should be prepared by the teacher and pupils; that reading should be integrated closely with other school activities; and that detailed, predetermined, and fixed procedures should be eliminated. With the general spirit of most of these recommendations, there is wide agreement. Some of them, however, suggest pointed questions. For example, can teachers and pupils develop a sufficient amount of carefully prepared material, even at the beginning stages, to insure the rapid and orderly development of desirable reading habits?

Chapter ix, which is entitled "In Critical Retrospect," surveys critically recent practices. With many of the points emphasized the reviewer finds himself in hearty agreement, such as the need for improving the literary quality of reading materials, for revising the principles underlying vocabulary usage in reading materials, for aiming to cultivate as well as to utilize children's interests in selecting materials to read, and for continued scientific study of the place and value of phonics in teaching reading. Other points which the author emphasizes should be considered critically before they are accepted. For example, she relegates "to dusty attics" basic readers. One may justly ask whether she is not primarily concerned with the name and form which characterize present-day series of readers. If so, she is justified in anticipating radical changes in the future. If, on the other hand, she maintains that efforts to provide specific materials for use in promoting the rapid and the orderly development of basic reading habits are inadvisable, her recommendation is not supported by experience and the results of scientific studies.

As indicated by the foregoing discussion, Smith's treatment is comprehensive, informing, and challenging. It is well written and ranks high as a readable book. It provides a critical survey of reading practices with which every teacher and every supervisor should be familiar.

WILLIAM S. GRAY

The psychological basis of education.—A large number of new books on educational psychology have come to the reviewer's attention during the past two years. Most of these are merely a rewriting of old material and seem to owe their existence to nothing but the desire of publishers to have books with recent copyright dates. Griffith's book¹ is refreshingly different. It is probably the most comprehensive and significant attempt to set forth the psychological principles of education since Thorndike's two-volume work of two decades ago. The book is intended for students in teacher-training courses who have had an introductory course in general psychology. Griffith tries to close the gap between psychological theory and educational practice. "Just as we have sought to phrase this book both in the language of practical teaching situations and in the language of educational and psychological experimentation, so we have sought

¹ Coleman R. Griffith, *An Introduction to Educational Psychology*. New York: Farrar & Rinehart, Inc., 1935. Pp. xiv+754.

to break down the discrepancy between maxims and actual teaching methods" (p. vi).

The first part, more than a third, of the book is written from the genetic point of view. The meaning of psychological growth is discussed by way of introduction. The characteristics of the neonatal and the preschool child are then presented. Thereafter the discussion is organized around the longitudinal development of the child, under the following topics: actions and attitudes, perceptual functions, attention and interest, motivation, emotionalized actions, problem-solving, and personality and character. The point of view is eclectic, but the book shows strong influence by the Gestalt psychology. The chapter on the development of problem-solving contains the clearest and the most stimulating presentation of the topic that the reviewer has read anywhere. A discussion of those forms of behavior that are related to, and commonly confused with, problem-solving leads to the conclusion that "problem-solving takes place whenever any two situations, objects, inferences, signs, or concepts are brought together into a configuration which hitherto has not been in existence" (p. 241). The teaching problems involved are then made clear.

Part II includes six chapters on original nature and learning. Mental inheritance and instinct are adequately discussed in the light of recent trends in genetics. Emphasis is placed on the function of the school in making the most of hereditary equipment. Consideration of theories of learning leads to the conclusion that there are three major features of all learning processes:

[1] Everything considered, it looks as though the essential nature of learning will be found in the neighborhood of that type described above as sign-learning. In other words, there are a great many circumstances under which one object or event may become a sign of another, point to it, or otherwise signify it [p. 423].

[2] . . . There are times when the sheer repetition of sequences of action, both at the manual level and at the verbal level, will make the "belongingness" between the various parts of these sequences more stable and more secure. . . . This sort of practice is known as overlearning [p. 424].

[3] In the third place, learning by insight describes a feature of the whole process of learning which resembles in a good many respects the sign-learning feature but which differs from sign-learning in the sense that one or more parts of the single configuration of circumstances may enter into a new pattern with one or more parts of another configuration [p. 424].

Other chapters on learning are concerned with its direction and control and with transfer.

The last section of the book is concerned with certain psychological tools and methods as related to education. Two chapters are devoted to intelligence tests and individual differences, and two more are concerned with problems of social adjustment and personal mental well-being. One chapter deals with physiological and environmental factors influencing efficiency of work in the schoolroom. The book closes with a general discussion of the psychological background of education including some reference to differing points of view in psychology.

Throughout the book there is a wealth of factual material. It is carefully documented, and the references can be used as starting points for intensive reading on a great variety of topics. The author's style is generally difficult. In many chapters, especially chapters ii, iii, iv, x, xi, xiv, and xvi, the undergraduate student is left somewhat bewildered. He feels that problems are raised and not completed. This statement is based on class use of the book. For students who have had one or more courses in psychology, Griffith's book is the best now available provided the instructor expects genuine work rather than easy reading. Teachers in service should find it valuable as a reference for clearing up psychological problems.

C. E. RAGSDALE

UNIVERSITY OF WISCONSIN

The education of personality.—The recent increase in the number of books dealing with personality problems shows the growth of interest among both lay and professional groups in the psychological problems of human behavior. The very interest in personality formation, however, has been somewhat unfortunate in one respect: definite therapeutic recommendations are being freely made with the vague hope that given educational methods may have a mental-hygiene effect. Because relatively little experimental work has been done on problems of personality development, "common-sense" recommendations regarding the "right" ways of living are the vogue.

In a new book on personality problems¹ Dorsey states, for example, that old-fashioned saws are expressive of mental-hygiene beliefs. The author also states that this book had its origin in a lecture given by him to a large group of business and professional men. In order to popularize his subject, he was forced to use popular language and many maxims. In consequence, a number of moral maxims were collected as leads to mental-hygiene concepts.

Despite the fact that mental hygiene has not as yet been well defined scientifically, one may assume that in practical effect it should lead to the prevention of personal and social maladjustments and to the prevention of mental abnormalities. Thus, the first need for the determination of mental-hygiene principles requires careful investigation into the causes of such deviations and abnormalities. Obviously, therefore, invoking maxims and saws can have little effect; they have, indeed, been invoked from time immemorial with little result.

In chapter vii, entitled "Orientation within the Personality," the author makes thirty-nine "declarations" regarding self-insight. Many of these are psychologically sound, but many others are the contrary. Declaration 15 reads, "Instincts are of value because they are not only unlearned patterns of behavior, but also sources of plastic, teachable energy" (p. 281). Number 18 states, "Most of our thinking is daydreaming" (p. 281). Number 39 reads, "Death cannot be considered as anti-biological" (p. 282). Interspersed among these declarations

¹ John Morris Dorsey, *The Foundations of Human Nature: The Study of the Person*. New York: Longmans, Green & Co., 1935. Pp. xiv+488. \$2.80.

are sayings which can probably be classified as "saws," such as Declaration 6, "There is a time for everything" (p. 280), and Declaration 20, "The wish is the father to the thought" (p. 281).

The editor of the education series of which this publication is a part states that the book is not intended for the reader whose notions about mental hygiene lead him to wish for rules and tricks. The statements already made in this review show that, on the contrary, too many rules have been given in this book. Chapter x, entitled "Human Values: What To Educate For," is directed toward the teacher and is very well written.

Despite a number of defects, there are many valuable statements and discussions which make the reading of this book exceedingly interesting. It is dynamically written, and the reader who opens its pages will be loath to close them. The author is a psychiatrist who not only is versed in psychiatric and medical information but is apparently also well informed in the fields of literature, education, and psychology.

For a person who does not have the time to delve into original experimental work on problems of mental hygiene or is not trained to know how to evaluate discussions on experimental work, this book should make instructive and interesting reading. The book emphasizes the necessity of looking for the bases of conduct in attempting therapy and points out that an infinite number of factors enter into the formation of a personality pattern. It also points out clearly that an individual's overt behavior is not always a criterion of his internal maladjustments.

MANDEL SHERMAN

The use of dramatization in the teaching of history in the elementary school.—Teachers of history in the elementary school have long been conscious of the value of giving the pupil the opportunity to enact a rôle in a historical episode. Through such a device they have attempted to humanize the story of human progress and to stimulate the development of historical-mindedness in their pupils. How best to utilize this device of dramatic presentation of the facts of history is attractively and effectively presented in a recent discussion of the problem;¹ a discussion which considers the ways and means, illustrations and projects, methods and techniques by which the latent possibilities in the dramatic instincts of children may be utilized.

After a brief discussion of objectives in history-teaching Miss Hubbard plunges full blast into her subject. Using dramatic presentation in a sense broad enough to include "many and various sorts of personal reactions to the historic past" (p. vii), she feels free to treat a somewhat varied list of topics. On the main theme of her volume she includes chapters which deal with the dramatic instinct as an educative factor, the use of dramatics in the classroom, points of a

¹ Eleanor Hubbard, *The Teaching of History through Dramatic Presentation*. Chicago: Benj. H. Sanborn & Co., 1935. Pp. xii+448. \$1.76.

good classroom history play, production of a classroom play, and impromptu dramatizations. Other aspects of the general theme treated in subsequent chapters are: play-writing by the teacher, by the class, and by individual pupils; the pantomime, the pageant, impersonation, and the puppet show; dramatic narration, pupil broadcasts; manual reactions to dramatic presentation and reactions in literary form; directed study and socialized recitation; and graphic map study, tests, and reviews. The reader will note from the varied lists of topics that the volume closely approaches a general manual on the teaching of history in the elementary school. It is certain that no book has appeared in recent years which surpasses this volume in the abundance of suggestions for emancipating the teaching of history in the grades from the traditional, static, and dry-as-dust methods which now predominate in too many schools.

R. M. TRYON

History for the middle grades.—A history textbook¹ for the use of children in the middle grades of the elementary school differs from practically all other textbooks in history in the direct use of the illustrations as an integral part of the teaching. In this book, dealing with Old World backgrounds, are more than two hundred pictures carefully selected from American and European sources. Chosen from famous museum, art-gallery, and library exhibits and from authentic modern films, paintings, and drawings, all illustrations are well reproduced and, with the references made to them in the text, add immeasurably to the understanding and pleasure of the reader.

The technique of the author provides for the participation of the pupil in the development of the narrative by guiding him at appropriate points through questions requiring the reorganization of his own knowledge or reference to the pictures or maps for new information or for illustration of points under discussion. Although there are spots where the text seems a little cluttered by too many questions (some of which call for inferences from insufficient data or are immediately answered for the pupil), the book is admirably suited to real classroom use.

The author has also excelled in the consistent and skilful use of maps to aid in the development of locational concepts. The reviewer considers that the building-up of a time sense is not so successfully done in spite of the time line printed accessibly in the end papers of the book and constantly referred to in the text. It is true that specific events can be readily placed in approximate location to the few carefully chosen happenings given on the time line, but too little attention is given either in the text or in the time line to fixing ideas of contemporary or overlapping civilizations or happenings. There should be more of the type of dating given in connection with Mesopotamia: "All this was happening in the Tigris-Euphrates Valley at the same time that the people of Egypt were

¹Hattie L. Hawley, *Adventures in Old World History*. Boston: Ginn & Co., 1935. Pp. xviii+452. \$1.12.

becoming civilized" (p. 31). Even if used for reference purposes only, the book is probably too full of dates.

The material is simply written and is made interesting by sufficient colorful detail. At the end of discussions of important groups of people or periods of time are valuable summarizing paragraphs of the pertinent contributions to civilization. Care is directed throughout the book to connecting the past, the present, and the future. Points of view are fairly and adequately expressed. Although there are a few minor inaccuracies, the book as a whole is excellently done.

The many ideas for extra things for the pupil to do, given at the ends of the chapters, are varied enough to suggest possibilities to teachers in almost any school situation. "The Check-up" exercises cover each chapter carefully by means of fact questions and true-false, completion, and multiple-answer tests. They fail to bring out the understanding of the important ideas.

The mechanical makeup of the volume is excellent. The clearness and simplicity of the maps and illustrations make these valuable features of the book. Except for the frontispiece and two double-page maps in color, the abundant pictures and maps are halftones. The printing and the page arrangements are pleasing. The book is more attractive inside than out.

The important achievement of this book lies in its incorporation of illustrations and maps as a part—and an essential part—of the teaching technique. It is to be hoped that other books of this general type will follow.

RUTH R. WATSON

Laying the foundation for the study of literature.—The keynote of the latest volume dealing with problems of reading in the elementary school¹ is that the best foundation for the study of literature in the high school consists in extensive, unanalytical reading of good books by pupils in the middle and the upper grades. Rightly beginning with the assumption that the literature chosen must be such that the children "can understand, interpret, enjoy, and therefore appreciate" (p. 4), the author departs from the traditional choices of pure literature only and includes all wholesome reading matter in order to lay the foundation through pleasurable reading experiences for "a permanent interest in reading" (p. 11). In short, the content of materials selected is of equal importance with the craftsmanship of the writer.

Following this sensible introduction, backed with telling citations from reliable objective studies in the reading field, the author devotes several chapters to the history and present status of literature written primarily for children. Chapters vii and viii, both entitled "Those Who Write Poetry for Children," present the most comprehensive survey of this topic that the present reviewer has seen. Chapter xi covers prose in the elementary school. The book proper

¹ Blanche E. Weekes, *Literature and the Child*. Newark, New Jersey: Silver, Burdett & Co., 1935. Pp. vi+456. \$2.16.

closes with a chapter on "Creative Self-Expression." An appendix presents a valuable "Classified List of Books for Children."

Some readers of Miss Weekes' excellent book will regret the exclusive departmental emphasis which seems to prevail throughout, will regret the absence of attention to the many reputable experiments in correlating literature with the other arts and to the less satisfactory but challenging experiments in associating literature with nature study, science, and social studies. Perhaps these topics, together with a treatment of modern tendencies in organizing a reading curriculum, an extensive treatment of the library, the development of silent-reading skills, the development of library skills, and remedial-reading programs, will appear in a later book by the author.

R. L. LYMAN

A useful guide for the director of social-recreation activities.—Physical directors, club leaders, group workers, camp directors, and colleges and universities offering new courses in recreational work are seeking material to meet the increasing demand for social recreation. Considerable material has been published that may be applied indirectly to the field of social recreation, but relatively little has been done to make readily accessible a well-classified list of recreational activities. A recently published volume¹ will go far towards meeting the demands of those who are seeking guidance in the directing of social recreation.

The book is divided into four parts. The first part deals with dance and party events. Methods of conducting games and activities suitable for the social mixer, the social dance, the club, and the home are explained in detail. Party games and contests, mystery games, social relays and group contests, rotative games, mental games, small-equipment games for clubroom and home, joke stunts, trick games, and forfeits for social gatherings are classified and discussed in such a way that their uses are easily apparent. The second part of the book contains materials for use in council-ring events. Numerous dramatic contests, stunts, dual contests, and combative games are described. A valuable and timely discussion on council-ring procedures precedes the listing of activities. The third part of the book contains a discussion of scouting, woodcraft, picnic, and outing events. The majority of the activities described are suitable for hikes, camps, and outings of various kinds. A valuable body of material is contained in the fourth part of the book, which gives many play activities useful in teaching. These games may be used in the schoolroom, home, or camp. The types of games presented here involve some knowledge of nature, knot-tying, first aid, signaling, arithmetic, history, geography, grammar, spelling, and the Bible.

The materials have been so presented that they may be successfully used by persons with or without social-leadership experience. The volume is a valuable contribution to the field of recreation.

LESLIE W. IRWIN

¹Bernard S. Mason and Elmer D. Mitchell, *Social Games for Recreation*. New York: A. S. Barnes & Co., Inc., 1935. Pp. vi+422.

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GENERAL EDUCATIONAL METHOD, HISTORY, THEORY
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- Bulletin No. 14, 1935—*Federal Student Aid Program* by Fred J. Kelly and John H. McNeely. Pp. iv+40.

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Educational News and Editorial Comment

THE MENACE OF SYMBOLISM

Even a superficial analysis of methods of securing social control today reveals that there is emerging a new power pattern, a new method of securing social approval, of developing emotional attachments, of establishing attitudes. In the old power pattern there were four essential elements, the two most important of which were wealth and force, gold and steel. Throughout history the possessors of these instruments of shaping the attitudes of men have usually experienced no great difficulty in having their way. Symbolism has always played a part in appealing to the emotions and in establishing attitudes. A fourth element in the old power pattern was the use of reason, of scientific analysis. With the development of scientific methods and the rise of science, there were those who dared to hope that most, if not all, social institutions and practices might in time be made to rest on a rational, scientific basis. But the rise of a new technique of securing social control is causing this hope to dim. We refer to the growing use of symbols. Mussolini, Hitler, Stalin, Gandhi—all these have demonstrated the effectiveness of symbolism and ritualism, of

black shirts and brown shirts, of loincloths, of the hammer and sickle, of fasces and swastika, of parades and salutes. Today it is dangerously true that social power belongs to those who are the most efficient "specialists in symbols." No doubt appeal to the emotions is necessary to motivate human action, but that appeal should follow and not precede rational analysis. Symbolism as it operates in the world today bids fair to become the implacable enemy of rationalism, and temporarily at least, to dethrone it.

In a recent article in the *Economic Forum*, entitled "How To Restore Public Confidence in Business and Finance," Edward L. Bernays urges the use of symbols as a means of restoring public confidence in business leaders and financial institutions. One of his striking recommendations is that outstanding men and women in positions of authority and leadership outside the business world be made "human symbols to bring new faith and new strength to business and finance." We quote the following paragraphs from Mr. Bernay's article.

Business heretofore has paid attention mainly to the comparatively unimportant elements of its relations with the public. Business has neglected the principal part of its public relations—that of solidifying its main position, of selling the whole idea of business to the public. . . .

In business or banking, as in other fields of human activity, the old methods of public relations must be counted as obsolete. When business first appreciated the importance of the precept "the public be pleased," it swung like a pendulum from its former "the public be damned" attitude. This swing, however, was an almost unconscious process and was not based on a sound understanding of both mass and individual psychology.

Leadership today, says an eminent sociologist, rests on an ability to understand, to interpret, and to utilize symbols. The inability to do so results in a dearth of leadership. This is true of business as it is of any other field.

Symbols are short cuts to thinking, to understanding—the words, the pictures, the ideas, the actions that are used as simplifications, that form the currency of propaganda. The acceptance of the symbol is emotional and is due to a previous familiarity with it.

As it is important and vital for our leaders to understand symbols in order that they may be successful themselves in interpreting these symbols and in projecting them to the public which will understand them, it is equally vital that the use of this mechanism be recognized in anything that business may want to accomplish for its point of view.

Political strategists understand these realities. Some of the national leaders

of today—Hitler in Germany, Mussolini in Italy, Stalin in Russia—know the value of symbols. Not one of these men—men who have fired the imagination of their publics—would have reached the point they have in the estimation of their countrymen if their concept of public relations had been that of kissing babies or giving cigars to desirable prospects. Their public relations with their constituencies have depended on a much more fundamental approach to the problem than that. These men recognize that their struggle for the public interest and the public attention is in essence a struggle for a response to symbols. Whether those symbols be of the ancient German gods, or of *Italia irredenta*, or of the fight against czaristic tyranny and oppression—the swastika of Hitler, the Italian fasces, the Bolshevik hammer and sickle—they are more than mere insignia. They are symbols that evoke an immediate response in the hearts and minds of millions.

The able politician and statesman recognizes the use of symbols in political life. Business has not as yet recognized the very fundamental importance of these symbols in business life. It recognizes, of course, the value of the word or slogan or of the picturesque trade-mark. But when it comes to applying the same principles that govern trade-marks and trade names to other actions and activities, business does not act. In the last analysis an intelligent understanding of symbols, their meanings and their proper utilization, is vital to the continued success of business with the public or of a particular business with its particular public. . . .

Business and financial institutions today cannot and may not for their own self-interest consider that their public-relations problem is simply one of hand-shaking or of window-dressing, of whitewashing or of politeness. Their job is the serious job of studying the entire situation from a broad viewpoint in order to find out, first, exactly what the public thinks of them; second, to find out if a deliberate attempt is being made to blacken them and to undermine the public's confidence; and then to devise a definite campaign of activities, words and pictures, to modify the current public's attitude.

This is not a problem of getting pieces into the papers—of making speeches or talking on the radio. It is a question of selling the idea that business and finance are essential parts of our system, of stressing the value of bankers and businessmen in our economic system. Every possible method of getting this idea to the public will need to be employed. . . .

May I suggest a four-point program of broad action to teach the public that it needs modern business and financial institutions, and cannot get along without them, in whatever setup there is.

They will accept the truth, first, if men they believe in, symbols they believe in, become spokesmen for business and finance.

To give these symbols the greatest validity, we must look to those who have no personal ax to grind, who have no private profit to gain, who are interested in attempting to solve the problems that confront our American system. These men

up standards for a minimum program of education; and for performing such administrative and supervisory functions as may from time to time be assigned to it by law." For the immediate future the state superintendent of public instruction, who by constitutional provision is at present elected by popular vote, would be the executive officer of the board. As soon as expedient this office should be removed from politics by an amendment to the constitution which would make possible the appointment of the state superintendent by the state board. Incidentally, the committee points out that Illinois is one of the five states which do not have a state board of education.

The committee comments at some length on the defects of the present system of local school administration in Illinois. The outstanding weaknesses of the public-school system "are its loose organization, its small unit of support and control, and its dependence upon the local property tax as the chief means of support." There are in Illinois today thirteen different types of local school districts aggregating approximately twelve thousand districts for the entire state. The disparity "between the wealthiest and poorest district in the state is represented by the ratio of 250 to 1." In the one-room elementary schools of the state the annual per pupil costs range from \$30 to \$747. The committee recommends the immediate creation of a county board of education to be elected by popular vote. This board would have authority to appoint a county commissioner of schools with an appropriate staff. Electors of local school districts, or of an entire county, should be authorized to abolish local school boards and come under the immediate and direct administration of the county board of education. It is urged that in time the county boards throughout the state be given administrative control of all schools in the counties except those located in cities which prefer to remain independent and which support a full program of elementary and secondary education under a single school board.

With respect to school finance, the committee makes the following general recommendation. "Illinois should look forward at the earliest possible moment to a minimum program guaranteed by local taxation and state aid of approximately \$60 per elementary pupil and \$83 per high-school pupil in districts where it is possible to maintain full-sized classes, and proportionately larger amounts where

classes, in spite of wise administration, are necessarily smaller." For the immediate present, however, the committee recommends a minimum program of \$41 per elementary-school pupil and \$55 per secondary-school pupil. The state is asked to guarantee this minimum program on the basis of a local tax levy of fifty cents for elementary schools and a similar levy for high schools (Grades IX to XII). The methods that the state should employ in distributing the funds necessary to maintain the minimum programs recommended are described in detail. It is also recommended that the state bear the cost of transportation of pupils. In this way it is hoped to encourage the adoption of the county-unit type of organization.

HERE AND THERE IN SCHOOL ADMINISTRATION

An attempt to democratize the administration of a city school system.—James H. Lawson, superintendent of schools of McKeesport, Pennsylvania, has initiated a plan whereby all members of the teaching staff of the city school system are given an opportunity to express an opinion in the formulation of important educational policies. The plan provides for an extensive use of conference and discussion groups. Superintendent Lawson reserves to himself the right and duty to exercise final judgment in all matters rightfully under his jurisdiction, but he arrives at final decisions only after consultation with those whose interests will be most directly affected.

The following description of the manner in which administrative and supervisory policies are determined has been supplied by Mr. Lawson.

- (1) When it is called to the attention of the superintendent that certain policies of administration or supervision should be established, a committee of principals is appointed to make a thorough study of the situation.
- (2) After the members of the committee have had time to talk with their teachers concerning the phases of the problem that affect them, a meeting of the committee is called to consider the problem. At this meeting the superintendent and the committee decide what they think the policies should be and formulate the policies in clear, concise language.
- (3) Then a principals' meeting is called to discuss the report of the committee. At this meeting each principal is given the opportunity to express his opinion of each point in this report. After the discussion of each point, the superintendent decides what the policy shall be.
- (4) The [statement of the] policies of administration and supervision is duplicated for each member of the administrative, supervisory, and teaching staff

in every building. (5) The principals are then instructed to call a meeting of their teachers and discuss the policies with them. This procedure is establishing uniform practices of administration and supervision throughout the school system.

The following paragraphs in Mr. Lawson's description tell of the opportunities given high-school teachers to work out co-operatively the problems which concern them most directly.

The high-school teachers are organized by departments, with a chairman of each department. The teachers of each subject are also organized, with a chairman of the teachers of that subject. The teachers of each subject meet once a week to discuss their problems and make out their plans for the following week. The department chairman is present at all the group meetings of his department to participate in the discussions. He is not there as a dictator but as a counselor and adviser. The plans worked out by the teachers are duplicated for all the teachers of that subject, and a copy is filed in the office of the principal. The principal, of course, discusses the plans of the teachers with the department chairmen. . . .

Once a month the teachers of each department have a departmental meeting to discuss their common problems under the leadership of the department chairman. The teachers have the privilege of selecting their own book for professional study and to work out their own meeting programs. This plan for professional study and development has the following advantages: (1) The problems for discussion may be problems about which the teachers are vitally concerned. (2) The literature selected for study and discussion may have a direct bearing on the subject matter in that field. (3) The group is small enough so that, with proper management, each member will feel obligated to go to the meetings prepared to make a contribution.

The plan also provides for the organization of elementary-school teachers into discussion groups where they will have an opportunity to consider their common problems. Co-operation in the formulation of examination questions for each subject in Grades IV-VIII, inclusive, is another feature of the plan. One week before the examinations are held, each school sends to the office of the superintendent a list of questions. From this list the superintendent and a committee of three principals select the questions to be used.

An example of effective school publicity.—The school, it should not be forgotten, is always in competition with other interests for the taxpayer's dollar. The taxpayer has so many dollars to spend, no more and no less. How will he spend them? Will he spend them for schools, for other public services such as libraries, for amusement and recreation, for food and shelter, for the thousand and one things

that satisfy his wants? If the public is to support adequately its school system, it must be made to see the value of that system and to realize the consequences of niggardly support. It is, therefore, the duty of every superintendent to discover means and ways of adequately and accurately informing the public with respect to the work and the needs of the schools.

In the autumn of 1935 the Board of Education of Cincinnati submitted to the electorate the proposition of a special tax levy and bond issue for the schools of the city. Before the election there was organized the Joint Committee on the School Levy and School Bond Issue, consisting of Judge Frederick L. Hoffman, of the Court of Common Pleas, as chairman; Chase M. Davies, president of the Board of Education; E. D. Roberts, superintendent of schools; and representatives of various commercial, teacher, and parent-teacher organizations. This committee sponsored a "Campaign Handbook," prepared by the Bureau of School Research under the directorship of Douglas E. Scates, which was circulated widely among teachers, officers of parent-teacher associations, ministers, and others. The handbook was replete with data with respect to the fiscal issues confronting the Board of Education, and the information was presented in readily understandable form. The cost of publication was met by private subscriptions and teachers' contributions. The handbook is an excellent illustration of effective school publicity.

A handbook on departmental organization.—A bulletin prepared by a committee of Chicago school principals, under the chairmanship of George Sype, of the Lawson School, carrying the title *Departmental Organization in the Elementary Schools* has been published by the Chicago Board of Education. The purpose of the committee was to prepare "a handbook outlining methods and plans for the effective and economical administration of elementary departmental work." A general discussion of such matters as the basic principles involved, periods, room units, subject combinations, home-room period, and time allotment is followed by a more detailed description of five general types of departmental organization. The bulletin also contains a short bibliography.

Experiments in reporting pupil progress.—During the past few years the widespread discontent with prevailing practices of reporting pupil progress has led to numerous experiments to discover more

satisfactory types of report cards. Two years ago Superintendent Homer W. Anderson, of Omaha, Nebraska, appointed a report-card committee to devise new types of report forms. At present three forms are being used to report pupil progress. Forms A and B are used to report progress in school subjects; Form C is used to report progress in citizenship. Teachers may choose either Form A or Form B, but all teachers must use Form C. Form A offers a compromise to teachers who prefer the personal letter to a report form. Teachers who employ Form A report on each school subject under one of the following heads.

He has made progress.

He is working in relation to his ability.

He needs to improve.

He has shown special ability.

We commend him for—

Additional comments:

After each of these headings space is left for any comment that the teacher may see fit to make. Form B is a more diagnostic card, separating scholarship into subdivisions—skills, knowledge, and appreciation. There is a heading for each school subject and under each subject are a number of items calling for teacher comment. For example, under the subject heading "Arithmetic" there is space for teacher comment on the following items: "Combinations and tables," "Problem-solving," and "Accuracy." Under "Health" the subtopics are "Cleanliness," "Posture," "Interest in play and recreation," and "Sportsmanship." Teachers using this form may supplement it with a note to parents designed to relieve the formality of the report. Form C is employed to present to parents a concise and descriptive report of the child's progress in citizenship. It is divided into two parts. Part I deals with the pupil's progress as an individual, and Part II deals with his progress as a member of a group. The teacher comments on the pupil's progress as an individual under the following headings.

Work habits.

Makes the best of a difficult situation.

Has the desire and willingness to improve himself.

Responds promptly, accurately, and cheerfully to school regulations.

Has grown in self-confidence.

Characteristics of the pupil as a member of a group are commented on under the following items.

Is friendly toward other children.

Has ability to work and play harmoniously with the group.

Is willing to share.

Gives courteous attention while others are speaking.

Claims only his share of attention.

Has pride in class accomplishments and school activities.

Additional comments.

Each of the report forms provides space for parents' comments. Superintendents who are considering modification of their reporting system will be interested in the pamphlet, *Omaha Public Schools Manual for Report Cards—Elementary Schools*, which describes in detail the Omaha plan of reporting pupil progress.

A radically different plan of reporting school progress is now being tried out experimentally in one of the elementary schools of Aberdeen, South Dakota. An attempt is being made "to give the parent a complete picture of the child's social, physical, emotional, and mental development in conference instead of sending the traditional formal subject-matter report card to the home." The plan adopted is known as the "graph method." In a brochure issued by the Aberdeen City Schools, entitled *The Graph Method for Reporting School Progress*, the essential feature of the plan is described as follows.

Parents are invited to the school for conferences four times a year. Prior to the conferences graphs to be explained to the parent have been prepared by the teacher. Items whereby the child's progress is estimated are listed on the graph card. An estimate of the child's ability is shown by a colored graph line, a different color being used for each graph of the four conferences. By this plan a graphic picture of the child's growth tendencies is apparent.

A folder containing specimens of children's work for the preceding period is kept in the teacher's graph card file. This folder is shown to the parent to supplement the graph estimate.

The graph indicates three levels of ability: unsatisfactory, satisfactory, and outstanding. By a check mark in the appropriate area parents are appraised of the child's mental ability. The graph shows the pupil's ratings in the following characteristics: readiness, industry, rate of work, accuracy, organization, participation, comprehension, retention, expression, independent thinking, initiative,

orderliness, promptness, co-operation, respect for authority, health habits, thrift habits, and reliability. No provision is made for reporting pupil progress in specific school subjects.

After the plan had been in effect one year, the patrons of the school were given an opportunity to express their reactions by means of a questionnaire letter. The response was overwhelmingly in favor of a continuation of the plan.

Reporting Pupil Progress (Bulletin 88) is the title of a recent bulletin published by the Department of Public Instruction of Pennsylvania. The bulletin was prepared by William H. Bristow, director of the Bureau of School Curriculum, with the assistance of staff members of the State Department. It contains a discussion of the guiding principles of reporting pupil progress, a description of various marking systems and report forms, and a selected bibliography.

A new procedure in establishing salary scales for teachers.—James H. Harris, superintendent of the public schools of Pontiac, Michigan, has initiated a plan which he calls "Collective Bargaining Applied to the Determination of Teachers' Salaries." The purpose of the plan is to give school-board members and representative teachers an opportunity to meet together and to present their various points of view with respect to teacher's salaries. The plan is based on the belief that, if school-board members and teachers are willing to sit down together and discuss their common problems, each group will arrive at a sympathetic understanding of the other's point of view and much irritation, friction, and ill feeling will be prevented. Superintendent Harris describes his plan as follows:

It occurred to me . . . last May, when the problem of determining teachers' salaries for the year 1935-36 arose, that the principle of collective bargaining might possibly have a place in the program. The general custom, here and elsewhere, has been for the board of education and the superintendent to determine the salaries and for the teachers to accept or decline. In too many instances, certainly since 1930, this policy was producing suspicion, irritation, and ill will.

Recognizing this situation, I suggested to our board of education last spring, *before* (not after) the problem of salaries for the oncoming year was determined, that we invite in a representative group of teachers, of their own choosing, to confer with us regarding the problem. Through this representative group the teachers could give voice to their views and desires, and, reciprocally, the

board of education could set forth and explain the financial problems and difficulties that confronted it.

The Pontiac Board of Education is fortunately composed of men who are broad and liberal enough to see the value of such a conference, and they at once gave their approval to the suggestion. The result was that the vexing problem of teachers' wages for the ensuing year was settled to the satisfaction of all parties. Further, and more important, understanding took the place of misunderstanding, good will was substituted for ill will, harmony for discord.

Some may perhaps shrink from calling the procedure "collective bargaining." That is exactly what it is, but, if a different nomenclature will soften the idea, it can be called by some other name. In any event, and by whatever name, the procedure is recommended to boards of education and superintendents confronted with a similar problem.

THE ALBANY PLAN OF PRIMARY-SCHOOL ORGANIZATION

It is becoming increasingly obvious that the primary grades of the schools of this country are in need of fundamental reorganization. The reasons why reorganization is necessary are not difficult to discover. For a number of years there has been a tendency for children to enter school at an earlier age, partly as a result of the establishment of kindergartens and of legislation relating to school attendance. Tradition has long required that children in the first grade be initiated into the mysteries of reading, and their success in learning to read is the measure of their success or failure in the work of that grade. We are far from knowing all the factors that determine the reading readiness of children, but it is clear that one of the most important is mental age. Moreover, experiments indicate that children with mental ages of less than six years are likely to experience great difficulty in learning to read. The prevailing high percentage of failure in the first grade is wholly unjustifiable because in many, if not in most, instances it results from forcing children to undertake work beyond their mental maturity. It is a waste of time and money to try to teach children to read when there is little possibility of success; far worse, a grave injustice may be done to children by placing them, at the very beginning of their formal education, in a situation where failure is inevitable.

Austin R. Coulson, superintendent of the schools of Albany, New York, has put into operation a type of grade organization which he hopes will make it possible for all pupils to go forward with their

work as rapidly as they are able and without failure or repetition of grades. The following paragraphs are quoted from a description of the plan issued by the Albany Board of Education under the title "Primary Years Organized for Reading—The Albany Plan."

In the organization herewith presented a dual system of pupil grouping is followed in the primary years—chronological age and reading readiness or achievement. Chronological age being the only recognized factor in determining school entry in days gone by is writ large in the school law. In this state kindergartens must accept children at four years of age though many boards of education discourage entrance until 4.6 or 5.0. Much data have been accumulated to show that children are happiest with those of approximately their own age. At any rate it is an approach, however rough, to grouping upon the basis of physiological maturity. The over-age boys and girls too commonly found in the primary years are frequently moral hazards, disciplinary problems, anti-social individuals if not actually embryonic criminals. They resent being classed with "babies" just as older groups react unfavorably to having a "baby" in their class.

Reading readiness or achievement is dependent upon mental development or M.A.—tempered always by home environment, health, economic conditions, etc. While no single test should be taken too seriously, full use should be made of intelligence, reading-readiness, and achievement tests in the diagnosis of difficulties and placement of individuals. An intelligence test at the end of the kindergarten year or at the beginning of the following year, a reading-readiness test a few months later prove of great assistance to the teacher in arriving at a final judgment. Progress each year should be checked by the use of a diagnostic reading test. Pupils showing evidence of specific reading defects should have individual examination and correction.

The dual plan, with entrance ages as of the date when school opens, is given in outline below.

	Minimum	Maximum	Achievement Levels
	Ages		
I.....	4.6	5.6	Kindergarten
	5.6	6.6	Preprimary
II.....	5.6	7.6	{ Preprimer
			{ Primer
			{ First reader
III.....	6.6	8.9	{ Primer
			{ First reader
			{ Second reader
IV.....	7.6	10.0	{ C-First reader
			{ B-Second reader
			{ A-Third reader

Age groups are always segregated by classrooms—one group to a room. The achievement levels are sometimes so segregated in large schools but usually the three sections work under one teacher. *Grades and grade teachers as usually*

designated have been completely eliminated. Age groups have no standards other than age, while the achievement standard is established for each pupil by his ability to achieve. Every pupil progresses from achievement level to achievement level at his or her individual rate. *There is no repeating and no skipping but constant progress at varying rates.* No pupil is asked to do that which he cannot do, and no teacher has to undertake an impossible task. The overlapping of age groups provides for individual differences just as does the overlapping in achievement levels.

Taking the chart let us make some individual applications by way of illustration.

(a) Fred enters kindergarten at 4.6. The following June the intelligence test indicates an I.Q. of 115, which will give him an M.A. of 6.4 when school opens. He is strong and in the judgment of the teacher is ready to undertake preprimer work. He enters Group II, preprimer level, having skipped the preprimary level. Within a few weeks he is reading from the primer and by mid-year reaches the first-reader level, which he meets so well that the following September at C.A. 6.6 he moves to Group III, second-reader level. This entire year he spends with that particular group, developing his reading by the use of many supplementary texts and library books. Formal studies—numbers, English, art, and other activities—now take increasing time. When he is 7.6 he enters Group IV, third-reader level. Less than 5 per cent of the registration are able to make any such progress at this age. If he maintains this rate, he will graduate from high school at the minimum age of 16.4.

(b) Ned presents the other extreme. Entering school in September at five years of age—Group I, kindergarten level, he shows little ability and little progress during the year. The June test indicates an I.Q. of 88. At six he re-enters Group I but now on the preprimary level where he spends a year, taking a reading-readiness test near the close of school. At seven, mental age 6.2, Ned enters Group II, preprimer level. During this year he moves through the primer level, and the June tests show that he is ready for Group III, first-reader level, for September at the age of eight. During this year he is unable to satisfactorily complete first-reader-level materials, so he enters Group IV, first-reader level, at nine years of age. During this year he will meet the standards for entrance to the second-reader level. If he fails during the year to complete the work on this level, he will, nevertheless, move out of the primary department to advanced second-reader level in the elementary department, for no child may enter a primary group at ten years of age. Should Ned stay in school, doing as well as he is able, he will be graduated from high school just before he becomes twenty years of age.

(c) Ted enters school for the first time at 6.6. Too old for Group I he is placed in Group II, preprimer level, where he spends as little or as much time as required. If of normal mental ability, he will probably be ready for second-reader level the following September. At any rate, irrespective of how little or how much he achieves he will move to Group III, on the basis of age, where he

will continue his reading growth on the appropriate level. If, at this time, he is found to be definitely a mental defective, he will be transferred to a special class.

A LITERARY MAGAZINE FOR BOYS AND GIRLS

Story Parade is the title of a new monthly magazine for girls and boys from eight to twelve years of age. This new literary monthly "is designed to give to children the best in stories, verse, and plays, by contemporary writers." One feature of the magazine is a department entitled "Our Own," in which will be published writings of literary merit by children. The managing editor is Lockie Parker. Among the names on the advisory board are the following: Katharine F. Lenroot, chief of the United States Children's Bureau; Bess Goodykoontz, assistant commissioner of education of the United States; Hughes Mearns, New York University; Grace A. Johnson, Public Library of Newark; and Margaret Mead, American Museum of Natural History.

Teachers, librarians, and parents have long felt the need of a juvenile magazine of high literary quality. The first number of *Story Parade* gives evidence that such a magazine will now be available. *Story Parade* is published at 70 Fifth Avenue, New York City. The subscription price is one dollar a year.

WHO'S WHO IN THIS ISSUE

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GETTING THE SCHOOLS OUT OF THE DEPRESSION

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Signs seem to indicate that the country is at last coming out of the depression. For the schools this depression has had two important aspects: one associated with loss of funds, the other with the expansion and the alteration of the task for which the schools are responsible. My concern here is with what these changes have meant and how the schools may be released from their grasp.

Little reminder is needed of how the depression has affected the schools. While the number of pupils has been increasing by some two hundred thousand a year, during a period of three years the school revenues have been reduced by a half-billion dollars.¹ Little building has been done, and the schools in use have been left to decay because of reductions in capital outlays of more than 80 per cent.² At the present time at least 1,400,000 children are housed in school buildings that are unsafe and unsanitary.³

Within the schools a similar picture is found. It was estimated that on April 1, 1934, schools affecting about one million children were closed.⁴ With the usual numbers out of school, there must have been two million children without schooling. From 1931 to 1933

¹ "Major Trends in Public Education," pp. 3, 4. Washington: Joint Commission on the Emergency in Education of the National Education Association and the Department of Superintendence, October, 1934.

² *The Nation's School Building Needs*, p. 6. Research Bulletin of the National Education Association, Vol. XIII, No. 1. Washington: Research Division of the National Education Association, 1935.

³ *Schools and Taxes*, p. 11. Washington: Joint Commission on the Emergency in Education of the National Education Association and the Department of Superintendence, 1935.

⁴ *Current Conditions in the Nation's Schools*, p. 103. Research Bulletin of the National Education Association, Vol. XI, No. 4. Washington: Research Division of the National Education Association, 1933.

nearly a fourth of the cities abandoned their summer schools, their night classes for adults, their Americanization work, and their continuation classes. Kindergartens were closed in one city out of nine, and classes for handicapped children were discontinued in one city out of six. Homemaking, music, art, health, and physical-education programs and research service have suffered widely.¹

Along with these curtailments the school faculties have been reduced; schools and classes have been shamefully crowded; and schoolbooks, apparatus, and supplies have been inadequate. Meantime salary schedules have been reduced to the point of enforcing upon thousands of teachers a standard of living that is a menace to health and to their outlook on life.² The bad effect of this condition on the work in the classrooms is inevitable.

Under cover of the depression, too, the enemies of public schools have found excuse for attack. Organized efforts have been made to reduce budgets, to unload the state's share of costs on the local district, to alarm taxpayers, to awake among the people a distrust of the educational leadership of the country, to introduce tuition charges and high student fees, and to take financial control from school boards and place it with outside political authorities.³

The second aspect of the depression has to do with the school's task of maintaining and advancing the cultural level of the people. It is trite but accurate to say that the school is an instrument for this purpose. It is equally trite and accurate to say that civilization is changing and that the school program must reflect the needs which those changes create. However, we are accustomed to thinking of the changes as advances in civilization, and the results of inventions, discoveries, education, travel, trade, and the church are cited as producing these changes. We often fail to see that changes may also be destructive. Wars, booms, depressions, pestilences, famines, superstition, and ignorance—all are instruments of change.

¹ "Major Trends in Public Education," p. 8. Washington: Joint Commission on the Emergency in Education of the National Education Association and the Department of Superintendence, October, 1934.

² *Ibid.*, p. 10.

³ Legislation of this kind was proposed in California.

The former are pleasurable and stimulating, and at the time they seem mainly beneficial. Aside from booms the latter are depressing and seem mainly harmful. Often, however, the ultimate effects of such changes are vastly different from the immediate effects. Sometimes changes occur rapidly and in great complexity and so confuse the minds of the people. It is this sort of movement from which we hope we are now emerging.

To keep the school adjusted to a world like that of the present is not simple. The school must go on teaching science, but what about using this science to solve the world's problems when those problems are shifting at such a rapid rate? The profession of education has been working for years to develop a knowledge of education in order, especially, to have a set of principles by which it may keep education adjusted to the needs of a changing world. Of late, progress has been greatly hindered, first, because changes more rapid and more complex than have before been known are taking place and, second, because financial restrictions have compelled the schools to abandon many of their scientific outposts, their finer adjustments to society's needs, and practically to stop the effort to meet the oncoming changes with new features of school practice. This cessation has left a growing no man's land to be crossed by the school, if possible, when its budget is restored. This expanding breach is a destructive force which the nation can ill afford to harbor.

I offer only these bare reminders of what the depression has meant, for the main concern here is with the question of how the schools may be freed from these difficulties.

To remedy the financial situation, the country must effect important changes in the fiscal machinery of the schools. Without such changes I can see little hope for public education in this country. Wealth is so unevenly distributed and in such unequal ratio to the distribution of children that in a large part of the country the old practice of local support for schools cannot stand the burden of cost. Either we must accept the principle that schools are an obligation of all the people and draw on wealth or income wherever it is to provide schools wherever the children are, or we must expect the gradual disappearance of free schools. It is not the total cost of free schools

that stands in the way. At the outside, schools consume hardly 2.5 per cent of our social income. Because of wrong plans of finance, however, the burden of public education is intolerable in one district while it is scarcely felt in another. Two billion, five hundred million dollars are needed annually to run the public schools as they were running in 1930.¹ If schools were accepted as a responsibility of the whole nation, that budget could be met with little difficulty.

The question is: How may we turn our resources to account to produce a suitable way out of this difficulty? I wish to submit the following proposals: (1) Accept the principle that in its nature and its immediate control the school is a local institution. (2) Accept the principle that beyond certain limits control shall be treated separately in setting up the machinery of the public school. (3) Reconstruct the district system throughout the country to take proper account of the present-day community and to give reasonable attention to principles of efficiency in school management. (4) Develop a minimum equalized program of instruction to be used as the basis for assigning to the several political units their separate responsibilities for support. (5) Equalize the cost for schools, the state to equalize among its districts and the federal government to equalize among the states. (6) Require the local district to make a minimum contribution and permit it to go as far in excess of this minimum as it likes. Along with these reforms, of course, should go a continuation of the present tax-reform movement. As long as we rely on antiquated methods of taxation we shall continue to have inefficient government.

As for the educational aspect of the depression I would suggest:

1. Let us try to bring ourselves to see that the schools are out of joint with the times. Times have changed, and the schools have moved definitely backwards—not relatively only, but absolutely as well. The people of the country need to be much more concerned about this retrogression than they are. The people's faith and confidence in free schools need to be renewed, the zeal regained with

¹ "Statistical Summary of Education, 1931-32," Table 7, p. 11. The Preface to the *Biennial Survey of Education in the United States: 1930-1932* (advance pages). United States Office of Education Bulletin No. 2, 1933.

which the little red schoolhouse fought its way across this country. There is much need for a little red schoolhouse for the present age. Incidentally, let it be more school than red.

2. There is need for a much better understanding of the school as an instrument of social progress. On this point educators are in a flabby state of mind. On the one hand, there are in the profession those who wish to return to the old disciplinary and academic conception of education; on the other hand, there are those who demand that the school shall undertake to create a new social order. The former concept is not improved by having it shouted in the name of culture, nor the latter by having it shouted in the name of democracy. It is obvious that the fulfilment of either of these aims is impossible, even in the light of common sense. To the first group I would say that to know virtue is not of a certainty to practice it wisely in life and that the same is true of science and art, or of reading and spelling. To the second group I would say: How and since when has the school gained the wisdom and the right to build a new social order, ignoring other forces that have always played a part?

Carefully examined, the former view represents the educational Rip Van Winkle's at their best; the latter, the educational fanatics at their worst. The danger in these views is their plausibility and the appeal that they make to people who think little and feel much. Many of those who entertain these views are sincere and seek good ends, but they defy the findings of science. It is to be hoped that these words may be useful in helping the profession to keep its sense of humor.

Between these extremes, however, are to be found the great majority of the educational workers—men and women who believe that, if good use is to be made of knowledge in a practical world, it must be pursued systematically but that it must be pursued in its applications as well. They have as little use for the uninteresting disciplinary methods of teaching on the one hand as they have for the "soft" methods on the other. The majority of the profession accepts the principle that the school is to participate in conserving our culture and in directing social evolution. They do not, however, believe that our past has been in vain. They do not believe that the school is the

only source of wisdom for shaping the course of civilization. For this great work they see the school laboring, not alone and not against, but with, the home, the church, the state, and the social and business institutions of the day. They see the future not apart from, but as an extension of, the past. They do not hope to fix the personal and social philosophy of life for all generations, through all times, nor alone to reshape the state for all time. Rather, they seek to develop in children a sense of freedom from philosophies ready formed and a responsibility for knowing the world that they themselves are building and for forming their own philosophies of life.

To put all these ideas in a few words:

There are two aspects to the depression for the schools, the financial and the educational. The former reduced the income of the schools by a fifth while the responsibilities of the schools were rapidly growing. This reduction broke the school program sadly by destroying most of the newer extensions and finer aspects of the school service. It crowded children into unsafe and dangerous buildings and denied to them needed materials of instruction. It burdened the teachers with increased work and low salaries and stimulated the enemies of free schools to further attacks.

The educational aspect is the reflection of all these conditions on the school as a going enterprise. The situation has caused some people to lose confidence in the school because they have seen its program crumbling and its properties falling into decay. This loss of the people's confidence is more serious than all other losses combined. Within the profession the reflection of the depression on the educational aspect has brought unrest and some serious agitation. The really important fact is that the schools are so behind in their responsibilities that, unless the American people take a prompt and firm hold, their schools and, in consequence, their civilization will suffer a still greater loss.

As a remedy for the financial difficulty I have proposed six steps: acceptance of the principle of local control; acceptance of the principle of separate treatment of support and control in organization; reorganization of district systems to fit community life; development of a minimum equalized program of education to be used as the basis

for assigning responsibility for support to the several political units; an equalized program of finance, including district, state, and federal units; and, with these, compulsory district contributions.

As a means toward bringing the educational aspect back to normal, parents and taxpayers are urged to try to understand their school and its service and not to have their faith in education shaken because of their own neglect of it. The members of the educational profession are urged to try to understand how the school has been thrown out of adjustment with social need and how the program may be brought abreast of that need. Finally, it is urged that educators and the public alike take a realistic view of the relation of the school to the processes of social change.

TESTING BASIC SKILLS IN THE SOCIAL STUDIES

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Exactly ten years have passed since Osburn published his study *Are We Making Good at Teaching History?* It will be recalled that Osburn classified, according to apparent educational objectives, 56,504 questions included in 2,250 sets of final-examination papers in history sent to him from 1,125 cities in all parts of this country. In his analysis of these examination questions actually used in the later elementary-school and the high-school grades, he discovered that approximately three-fourths called only for the recall of facts; that is to say, they were of the "who," "what," "when," "where," "define," "identify" variety.¹

THE NEED OF TESTS TO MEASURE THE ATTAINMENT OF THE GOALS OF INSTRUCTION

The purpose of Osburn's investigation was to discover what was being stressed in history-teaching. He justified his approach to the problem by stating that "the character of the questions asked by teachers on final examinations is a valuable indication of what the teachers expect their pupils to know at the completion of the course."² In this statement Osburn affirms what all teachers must accept, namely, that instruction and measurement go hand in hand. It is trite to reiterate that the type and the content of instruction are dictated by the aims of instruction and that the chief function of measurement is to discover whether the values claimed for instruction have been realized.

In recent years history-teaching has not been characterized by the excessive emphasis upon the training of the memory which Osburn decried. Consequently, it is not strange that the trend in the testing

¹ *Are We Making Good at Teaching History?* p. 58. Prepared under the direction of W. J. Osburn. Bloomington, Illinois: Public School Publishing Co., 1926.

² *Ibid.*, p. 7.

of general achievement has been to stress the measurement of the pupil's reasoned understanding of content. If an analysis were made of currently used, standardized general-achievement examinations in history, the percentage of thought-provoking questions doubtless would be considerably higher than that discovered in the essay-type examinations analyzed by Osburn. Even so, there is little reason for either the authors of standardized tests or their colleagues in the ranks of classroom teachers to grow complacent. The fact is that only a beginning has been made in the task of devising procedures to measure pupil attainment of the great variety of values claimed for instruction in the social studies.

BASIC SKILLS AS A FUNDAMENTAL GOAL OF INSTRUCTION

A prerequisite to efficient learning is proficiency in the management of the tools to be used in the learning process. If the pupil in history cannot use an index to find materials bearing on assigned topics, if he cannot understand the content which he reads, if he cannot interpret the maps and graphs included in his textbook, he certainly cannot be expected to make progress in achieving more remote goals of instruction. Since the mastery of certain skills is basic to effective work in the social-studies field, the acquisition of these skills by the pupil must be the first goal of instruction. It follows logically that diagnostic examinations must be developed and that these examinations must be used (1) to discover the extent to which the pupil has mastered the basic skills and (2) to indicate areas in which he needs remedial instruction.

AN ATTEMPT TO MEASURE MASTERY OF BASIC SKILLS

A pioneer effort along this line of testing was made early in 1935 when the Iowa Every-Pupil Tests of Basic Skills were administered to about twenty-five thousand pupils in Grades VI, VII, and VIII. Although designed for the later elementary-school grades, diagnostic exercises similar to those included in this examination may be used at higher levels. The battery includes a test of silent-reading comprehension, a test of basic language skills, and a test of basic study skills. The last-mentioned test is made up of sections designed to measure such abilities as comprehension of maps, reading of graphs, use of basic references, alphabetizing, and use of the index. It is the

purpose of this article, through an analysis of certain results obtained from the administration of the test of basic study skills, (1) to call attention to the comparative failure of pupils to master these skills and (2) to suggest types of objective exercises which may be used both in the diagnosis of deficiencies and in remedial teaching.

Variability in pupil and class achievement.—In order that the first of these purposes may be realized, it is necessary to point out the variability in pupil and class achievement on the test as a whole and especially to call attention to the overlap in achievement between grades. These general tendencies may be summarized as follows: (1) The range from the tenth to the ninetieth percentile for scores on the examination as a whole was *four times* as great in any grade as the average difference between grades.¹ (2) In no case did the median for any grade fall above the seventy-fifth percentile for the preceding grade or below the twenty-fifth percentile for the succeeding grade.² (3) The range from the twenty-fifth to the seventy-fifth percentile of *class average* scores for any given grade on the examination as a whole varied from .37 to .45 of the corresponding range of pupil scores.³ Thus, it appears that the middle half of the seventh-grade pupils may be thought of as ranging in ability from below the median of Grade VI to above the median of Grade VIII. That is to say, more than a fourth of the sixth-grade pupils surpass the seventh-grade median, whereas more than a fourth of the seventh-grade pupils are below the sixth-grade median. For that matter, more than 10 per cent of the sixth-grade pupils are above the eighth-grade median. The full significance of the variability in class achievement becomes apparent when the results for specific schools are considered. For example, the best pupil in Grade VII of School C only achieved to the level of the twenty-fifth percentile for the same grade in School D; that is, 75 per cent of the pupils in School D displayed greater competence than did the best pupil in School C. In another pair of

¹ J. Lloyd Rogers, *A Survey of the Relative Effectiveness with Which Iowa Elementary Schools Are Developing Certain Basic Study Skills*, p. 68. Unpublished Doctor's thesis, University of Iowa, 1935.

² *Ibid.*, p. 69.

³ Based on norms in Table 12 in *Summary Report of Results of the Iowa Every-Pupil Testing Program for Grades 6, 7 and 8, Administered January 29, 1935*, p. 13. Iowa City, Iowa: Bureau of Educational Research and Service, University of Iowa, 1935.

schools the poorest sixth-grade pupil in School B exceeded the eighth-grade median in School E.

What has been said suggests how meaningless it is to describe a pupil as having reached the "standard" for any given grade without taking into consideration the factors of variability and overlap in pupil performance. The relatively small average gains from grade to grade further indicate either that most schools have failed to isolate basic skills for instruction or that instruction has been inadequate.¹ The great variability in class achievement suggests that many schools graduate pupils from Grade VIII without having provided the training in basic skills that will enable them to work efficiently in high school. If the high school, in turn, fails to make good this deficiency, these handicapped pupils will be "passed along" to the university only to increase the ranks of college "failures."

Ability to read maps.—That the remarks just made are justified becomes clear when consideration is given to the importance of having pupils acquire such basic abilities as those which the Iowa Every-Pupil Tests of Basic Skills are designed to measure. The section dealing with the reading of maps, for example, touches only on those simple and fundamental skills which are included in the list of attainments set up for Grades IV and V in the Thirty-second Yearbook of the National Society for the Study of Education.² The examination provides the pupil with a map of Rumania which includes such geographic details as boundaries, mountains, rivers, cities, longitude and latitude lines, and a scale of miles. Based on this map are a series of four-response multiple-choice questions, of which the following is typical.

What is the approximate distance across Rumania
from east to west at the widest point?

(1) 200 miles

(3) 500 miles

(2) 350 miles

(4) 650 miles

The percentages of correct responses in the three grades were surprisingly low: 52, 55, and 62 in Grades VI, VII, and VIII, respectively. Nearly a fifth of all the pupils tested chose "350 miles,"

¹ Based on the discussion in J. Lloyd Rogers, *op. cit.*, pp. 69 ff.

² *The Teaching of Geography*. Thirty-second Yearbook of the National Society for the Study of Education. Bloomington, Illinois: Public School Publishing Co., 1933.

which is the distance across Rumania from north to south.¹ This answer suggests that the pupils may not be able to tell direction on the map. At the same time, the fact cannot be overemphasized that many pupils do not understand how to apply a scale of miles in estimating distance. Recently the writer had occasion to observe a class in tenth-grade world-history at work on a map problem calling for the computation of the distance between two cities. Only six pupils employed the simple method of marking off the distance on a piece of paper and then checking this distance directly against the scale. That many eighth-grade pupils lack the ability to make use of a scale of miles in estimating area may be illustrated by their responses to another question in the examination.

Which of the following states has most nearly the same area as Rumania?

- (1) West Virginia 24,000 square miles
- (2) Iowa 56,000 square miles
- (3) New Mexico 122,000 square miles
- (4) Texas 265,000 square miles

That 11 per cent of the eighth-grade pupils tested omitted this question suggests that they found it too difficult to answer. Of those who attempted the item, 19 per cent selected the first response; 17 per cent, the second; 19 per cent, the third (and correct); and 33 per cent, the last.² It is not likely that this question would baffle a pupil who could make effective use of a scale of miles. A glance at the map reveals the area of Rumania to be roughly that of a rectangle. Reference to the scale reveals further that the sides of the rectangle are approximately 400 miles in length (east to west) and 300 miles in width (north to south). There is no need for accurate calculations since the foils (incorrect responses) nearest to the correct answer are 56,000 and 265,000 square miles.

The results on another question may be included to illustrate the failure of pupils to understand important terminology.

Which of the following best describes the location of Akkerman?

- (1) Near the mouth of a river (3) Near a river delta
- (2) Near the source of a river (4) Near the tributary of a river

¹ J. Lloyd Rogers, *op. cit.*, p. 138.

² *Ibid.*, p. 140.

The correct answer, "mouth of a river," was chosen by only about 40 per cent of the pupils taking the examination.¹ Even in Grade VIII, 12 per cent of the pupils chose "source of a river"; 13 per cent, "near the tributary of a river"; and 34 per cent selected "river delta." The preference for the last response cannot logically be explained since the map included in the examination shows that the Dniester River empties into a bay free from any trace of a delta. The explanation which suggests itself is that these terms, and perhaps others of equally fundamental importance, are not a part of the effective vocabulary of pupils completing the elementary grades.

Space does not permit the consideration of other map items included in the examination. The confusion resulting from misconceptions concerning common ideas and symbols may be illustrated instead by certain characteristic responses returned in the course of personal interviews with pupils who had taken the test: "A delta looks something like a bay." "I don't know how to tell mountains." "The line through the middle of the map is the equator." "Upstream means north, or toward the top of the map." "Altitude means how far up north."²

Ability to read graphs.—Another section of the Iowa Every-Pupil Tests of Basic Skills is designed to measure the ability to read graphs and charts. Such graphic representations are numerous in newspapers and periodicals and are becoming increasingly common in textbooks. Doubtless the assumption underlying this increased emphasis on graphic representation is that certain relationships can be presented more clearly in this form than they can be described in words. Data from the 1935 Iowa Every-Pupil Testing Program, however, suggest that a large proportion of pupils lack the ability to interpret graphs of even the simplest types.

The section of the examination devoted to the measurement of ability to read graphs consists of a series of multiple-choice questions based on certain figures included in the test. One of these is a bar graph showing the "Net Cost of the War as Compared with National Wealth of the Leading Nations." A scale showing cost in billions of dollars is provided to the left of the figure. A legend is also provided explaining that the solid bar represents war costs and the shaded bar

¹ *Ibid.*, p. 136.

² *Ibid.*, pp. 89 ff.

indicates total national wealth. The following question is based on this graph.

How did the United States rank in amount spent for war?

- | | |
|---------------------------|---------------------|
| (1) First; spent the most | (3) Third |
| (2) Second | (4) Spent the least |

To answer this question correctly, the pupil need only estimate the comparative length of the solid bars for the three countries having the greatest expenditures for war: Great Britain, Germany, and the United States. It is not necessary to refer to the scale because the differences in the lengths of the bars are clearly noticeable. Yet the percentages of pupils selecting the correct response varied from 55 in Grade VI to 77 in Grade VIII. More than 20 per cent of the total group ranked the United States first,¹ despite the fact that in the figure the much longer bar for Great Britain is placed next to the bar for this country. The correct answer to this question should therefore be obvious to anyone who examines the graph. The only circumstance which can explain why so many pupils selected the incorrect response is either that they neglected to refer to the graph, probably thinking they knew the answer, or that they did not know how to interpret this figure.

The results on another question are equally discouraging.

About how many billions did Great Britain spend for war?

- | | |
|-----------------|-------------|
| (1) Five | (3) Fifty |
| (2) Twenty-five | (4) Seventy |

The percentages of correct answers to this item ranged from 54 in Grade VI to 73 in Grade VIII. The percentages of pupils selecting the fourth response ranged from 31 to 24 in the same grades.² By selecting the fourth response, "seventy billions," these pupils indicated that they had confused the bar representing national wealth with that representing war costs. Whether their failure on this item resulted from carelessness or from the fact that they did not know enough about reading graphs to refer to the legend, it is impossible to tell.

The answers returned to still a third question seem to indicate that

¹ *Ibid.*, p. 150.

² *Ibid.*, p. 150.

less than half of the pupils in Grade VIII can make use of a bar graph in estimating simple proportions.

Which country spent the smallest proportion of its national wealth for war?

(1) United States

(3) France

(2) Great Britain

(4) Germany

The proportions represented in the graph are approximately one-tenth, one-third, one-fifth, and one-third, respectively, for the countries listed. It would seem that the pupil should be able to recognize by inspection that the "United States" is the correct answer. Yet, if he were in doubt, it would be a simple matter to mark off the length of the "war-cost" bar on the "national-wealth" bar and thus determine the proportions for each country. Only 19 per cent of the sixth-grade pupils, 28 per cent of the seventh-grade pupils, and 43 per cent of the eighth-grade pupils answered this question correctly. That many pupils found the question too difficult for even an attempt at an answer is indicated by the fact that the item was omitted by 30 per cent of the pupils in Grade VI, 22 per cent in Grade VII, and 13 per cent in Grade VIII.¹

It is not possible to take space to present the results on other questions of this type, but perhaps the brief discussion given may serve to indicate the need for remedial teaching in this area.

Ability to use basic references.—Teachers of the social studies commonly claim that the use of reference materials is an integral part of instruction in their field. For this reason it was deemed necessary to include in the Iowa Every-Pupil Tests of Basic Skills some measure of pupil ability to use references. The limitations imposed by a test situation, however, made it impossible to secure anything but an indirect measure of this particular ability. The procedure followed is simply to test the pupil's knowledge of the types of information which may be found in such basic references as an atlas, a dictionary, an encyclopedia, *Who's Who*, and a yearbook. Underlying this approach is the assumption that, unless the pupil knows where to look for different types of information, he is not likely to be able to make effective use of reference materials.

The test exercise requires that the pupil write the number of the

¹ *Ibid.*, p. 151.

type of reference (1. atlas, 2. dictionary, 3. encyclopedia, 4. *Who's Who*, 5. yearbook) in which he would expect to find the answer to each of a number of questions, such as:

What body of land is closest to the North Pole?

How do you pronounce "affiliate"?

How are diamonds mined?

How much did the United States spend for education in the last year for which there are figures?

Where did President R. M. Hughes, of Iowa State College, get his education?

The extent to which the pupils tested were able to indicate correctly the sources where answers to questions of the type quoted may be found is indicated in Table I. Except in the case of the dictionary,

TABLE I
AVERAGE PERCENTAGE OF CORRECT RESPONSES TO QUESTIONS
REGARDING USE OF REFERENCE BOOKS*

ITEMS CONCERNING—	NUMBER OF ITEMS	AVERAGE PERCENTAGE OF CORRECT RESPONSES		
		Grade VI	Grade VII	Grade VIII
Atlas.....	6	54	56	57
Dictionary.....	12	73	85	91
Encyclopedia.....	10	45	55	65
<i>Who's Who</i>	6	53	53	63
Yearbook.....	7	43	50	57

* Data from J. Lloyd Rogers, *op. cit.*, p. 97.

the percentages of correct responses are not impressive. A partial explanation of this unsatisfactory showing may be found in the fact that even in Grade VIII less than a third of the schools participating in the testing program have yearbooks available for reference use. At the same grade level not one school in seven provides a copy of *Who's Who*. It must not be assumed, however, that the non-availability of these reference books is the sole explanation of the unsatisfactory performance made by the pupils. Thus, the average percentage of correct responses on the six items concerning the use of the atlas increased only from 54 in Grade VI to 57 in Grade VIII, whereas the percentage of schools having an atlas available for reference

use increased from 50 in Grade VI to 77 in Grade VIII.¹ The suspicion that pupils may be afforded little opportunity to use reference books in finding answers to questions similar to those included in the examination is further increased by the results on two questions concerning the use of the encyclopedia, a type of reference book almost universally available in the schools. In view of the fact that the first question ("In what part of the United States were the Iroquois Indians found?") deals with a topic commonly taught in seventh-grade American history, the percentage of pupils selecting wrong responses is worthy of note. Incorrect responses in Grade VII were as follows: atlas, 19 per cent; dictionary, 2 per cent; *Who's Who*, 14 per cent; yearbook, 8 per cent.² It is equally difficult to understand how pupils who have had much experience in using the encyclopedia to look up biographical data could make the choices indicated for the next question: "Find what you can about the life of Longfellow, 1807-82." The incorrect responses in Grade VI were: atlas, 4 per cent; dictionary, 3 per cent; *Who's Who*, 31 per cent; yearbook, 16 per cent.³ Surely pupils who return such answers can have little insight into the type of content included in an encyclopedia. Whether this condition may be ascribed to the failure of teachers to make assignments involving the use of reference materials may be debatable, but no one will deny that these pupils are poorly prepared to work independently in the library or the study hall.

Ability to alphabetize and to use indexes.—That pupils are poorly prepared to study independently is further indicated by the results on the sections of the examination designed to measure pupil ability to alphabetize and to use an index. As a measure of the first of these abilities, the pupil is given several exercises, each consisting of a list of words arranged in alphabetical order with the spaces between the words numbered, and a second list of words in non-alphabetical order. The pupil's task is to write the number of the space into which he would fit each of the words in the non-alphabetized list in combining the two lists into a single alphabetical list. In the time limit of seven minutes set for this section of the test, more than a sixth of the pupils in Grade VI failed to make a score of four out of a possible score of twenty-four, that is, failed to find the proper place in the

¹ *Ibid.*, p. 105.² *Ibid.*, p. 98.³ *Ibid.*, p. 98.

alphabetized list for even four words in the second list. For 13 per cent of the sixth-grade classes the *average* score was eight words or less.¹ Certainly the location of information must be a slow and uncertain procedure for such pupils.

Of the study skills which this examination seeks to measure, the use of an index is perhaps the most important. Since pupils, in order to work independently, must be able to use an index, this skill is commonly taught in Grade IV and occasionally a year earlier. In view of this grade placement it is disturbing to note the difficulties that the upper-grade pupils encountered in applying this skill. The section of the examination devoted to measuring the ability of pupils to make use of an index includes a typical index page such as might appear in a geography. The pupils are then asked to record the pages on which they would find answers to such questions as the following.

In what parts of Canada is irrigation practiced? (Percentages of correct responses: 48 in Grade VI, 49 in Grade VII, and 53 in Grade VIII.)

How much coal, iron, and copper is mined in Alaska? (Percentages of correct responses: 42 in Grade VI, 51 in Grade VII, and 59 in Grade VIII.)

What page contains a *figure* showing what part of the world's supply of petroleum is produced in the United States? (Percentages of correct responses: 33 in Grade VI, 40 in Grade VII, and 52 in Grade VIII.)²

To answer the first of these questions, the pupil need only look under "irrigation" for the subtopic "Canada." To figure out the second, he would have to look under "Alaska" and note the subtopic "minerals," which, to be sure, is not specifically mentioned in the question. To answer the last, he need only look under "petroleum" to find the subtopic "world production (Fig. 186), 203." In answering certain other items which call for the interpretation of special signs and marks, the pupils tested were found to be even less adequately prepared.

What kind of fishing is done in Portland, Oregon? (Percentages of correct responses: 39 in Grade VI, 41 in Grade VII, 49 in Grade VIII.)

Beginning on what page can you find the longest passage about corn? (Percentages of correct responses: 15 in Grade VI, 21 in Grade VII, and 31 in Grade VIII.)³

In referring to the index to answer these questions, the pupil in the first instance need only note that the word "Oregon" is included

¹ *Ibid.*, p. 94.

² *Ibid.*, p. 95.

³ *Ibid.*, pp. 163 ff.

in parentheses to distinguish Portland, Maine, from Portland, Oregon. To answer the second question correctly, he would need only to know that a reference with the page numbers "224-232" indicates inclusive pages. Yet about a fifth of the pupils in the three grades found this last item so difficult that they did not attempt to answer it. It scarcely can be doubted that pupils who experience difficulties in answering questions of this kind will experience equal difficulties in making use of an index in the course of their regular study procedure.

OBJECTIVE-TYPE EXERCISES USEFUL BOTH IN DIAGNOSIS AND IN REMEDIAL TEACHING

The evidence presented seems to indicate that Iowa pupils completing their elementary education are inadequately prepared to do effective work in social studies at the high-school level. There is no reason to assume that the situation is markedly different in other states. The implication for high-school teaching is simply that the social-studies teacher must develop pupil proficiency in basic skills to the point where boys and girls can make efficient use of the materials of instruction. Skill-building, therefore, must be regarded as a fundamental aim of instruction in high school, and the extent to which this goal is realized must be measured both by the informal tests of the classroom teacher and by the standardized examinations of the test-builder. Exercises of the types discussed in this paper may, in a sense, serve a double purpose: (1) to measure pupil mastery of basic skills and (2) to provide drill necessary for the development of skills. The drill phase of skill-building, however, is a means to an end rather than an end in itself. The real goal is to develop pupils who can make effective use of basic skills in the regular work of those courses in which they are enrolled.

EDUCATIONAL IMPLICATIONS OF RECENT CHANGES IN FARM POPULATION

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It is the purpose of this article to examine recent changes in the population in this country, particularly in the farm and rural population, and to point out the educational implications of the trends.

MIGRATION AND NATURAL INCREASE IN FARM POPULATION

Changes in the farm population growing out of migration and natural increase during recent years are particularly significant. Table I indicates something of the quantitative changes which have taken place in the farm population since 1910.

Migration to and from farms seems to be a barometer of agricultural prosperity. The farm population decreases when attractive economic opportunities appear elsewhere and increases when farming seems more attractive than other vocations. During the period 1910-19, for example, the total net loss in the farm population was 463,000; but each of the years 1922 and 1926, as well as the two-year period 1923-25, showed a greater net loss of farm population than the entire period 1910-19. The reader, recalling economic trends, will note that the net changes in farm population for the period 1920-29 reflected the changing economic conditions.

Each of the five years of 1930 to 1934, inclusive, showed a marked increase in the farm population, although the increases during 1933-34 were smaller than the earlier increases. The total migration to farms during the period 1931-33 was numerically no greater than the migration to farms during several of the preceding years. Hence, the net figures show a movement to farms because of a sharp reduction in total movement from farms. Thus, the increase in the farm population during the period 1930-34 was primarily due not to migration to farms but to natural increase in the farm population. Even though there was a net migration from farms of about a

quarter-million persons during each of the years 1933 and 1934, slightly more than a quarter-million persons were added to the farm population during each of these years. Most of the recent increase

TABLE I
CHANGES IN FARM POPULATION OF THE UNITED STATES FOR
THE PERIOD 1910-19 AND FOR THE YEARS 1920-35
(FIGURES SHOWN IN THOUSANDS)*

YEAR	TOTAL POPULATION IN UNITED STATES	FARM POPULA- TION JANUARY 1	TOTAL MOVEMENT TO AND FROM FARMS		NET MOVEMENT TO AND FROM FARMS §		NET GAIN IN FARM POPULA- TION
			To Farms	From Farms	To Farms	From Farms	
1910.....	91,972†	32,077	.....	.....	.....	.....	.....
1910-19.....			.....	.....	.....	.....	463
1920.....	105,711†	31,614	560	896	.....	336	89
1921.....		31,703	759	1,323	.....	564	65
1922.....		31,768	1,115	2,252	.....	1,137	478
1923.....		31,290	1,355	2,162	.....	807	234
1924.....		31,056	1,581	2,068	.....	487	8
1925.....		31,064	1,336	2,038	.....	702	280
1926.....		30,784	1,427	2,334	.....	907	503
1927.....		30,281	1,705	2,162	.....	457	6
1928.....		30,275	1,698	2,120	.....	422	18
1929.....		30,257	1,604	2,081	.....	477	88
1930.....	122,775†	30,169	1,740	1,723	17	.....	416
1931.....		30,585	1,683	1,469	214	.....	656
1932.....		31,241	1,544	1,011	533	.....	1,001
1933.....		32,242	951	1,178	.....	227	267
1934.....		32,509	783	994	.....	211	270
1935.....	127,171†	32,779	.....	.....	.....	.....	.....

*The data for the table, except those on total population, are from "Farm Population Estimates, January 1, 1935," United States Department of Agriculture, Bureau of Agricultural Economics (press release May 2, 1935).

†Abstract of the Fifteenth Census of the United States, Table 2, p. 9.

‡Estimate for January 1, 1935, by Warren S. Thompson, "Movements of Population," *American Journal of Sociology*, XL (May, 1935), 713-19.

§ Births and deaths not taken into account.

in farm population, then, has been due to an accumulation of young adults on farms who under conditions prevailing a few years earlier would have migrated to cities.¹

¹It might be expected that such an accumulation of young adults would result in an increase in rural marriages and births. Warren S. Thompson, ("Movements of Population," *American Journal of Sociology*, XL [May, 1935], 713-19) has shown a recent increase in marriages and births for the country as a whole.

The foregoing paragraphs have dealt with the United States as a whole. Since some sections of the country have larger agricultural areas than others, consideration will be given to the geographic sections. Data showing changes in the farm populations of the main divisions of the United States are shown in Table II.

In 1930 most divisions were at or near the low mark in farm population, with some fluctuation during the few preceding years. During the five calendar years 1930-34 the farm population steadily increased in every division except the West North Central and the Mountain divisions. The decrease in these divisions in 1934 may have been due largely to the drought and to withdrawal of land from cultivation by federal planning. The most typical agricultural sections, the South and the Middle West, showed marked increases in births in the farm population during the three years 1932-34 as compared with the years immediately preceding. The same tendency may be noted for 1933 and 1934, although less marked, in the four remaining geographical divisions.

On January 1, 1935, the three southern divisions had a farm population of 17,805,000, as contrasted with a farm population of 15,003,000 in the other six divisions. Thus, the South, which has about 30 per cent of the 2,973,776 square miles of land area in the continental United States,¹ has over half of the farm population. Moreover, 1,561,000 (61 per cent) of the 2,522,000 net increase in farm population from January 1, 1929, to January 1, 1935, was in the South. In this section of the country, furthermore, the percentage of children in the total population is the highest.²

It is generally known that the urban birth-rate is insufficient to maintain the urban population. Since the 1930 Census indicates that 56.2 per cent of the total population was living in urban communities,³ the matter of urban versus rural birth-rate is of great importance. If the population is to be numerically maintained, it will apparently be maintained by the rural sections and particularly by the southern rural section. The next generation is disproportionately recruited from the rural population of the current generation and to a marked degree from the underprivileged rather than from the average or the superior groups of the current rural population.

¹ *Abstract of the Fifteenth Census of the United States*, Table 5, p. 13.

² *Ibid.*, Table 107, pp. 191-207.

³ *Ibid.*, Table 7, p. 15.

TABLE II
CHANGES IN FARM POPULATION FROM 1920 TO 1935 IN GEOGRAPHIC DIVISIONS
OF THE UNITED STATES (FIGURES SHOWN IN THOUSANDS)*

Year	Farm Population on January 1	Births during Year	Excess of Births over Deaths	Net Increase in Farm Population†	Farm Population on January 1	Births during Year	Excess of Births over Deaths	Net Increase in Farm Population†	Farm Population on January 1	Births during Year	Excess of Births over Deaths	Net Increase in Farm Population†
New England					West North Central				West South Central			
1920†	626	2	- 2	- 2	5,171	57	16	11	5,228	110	58	11
1921†	624	12	5	- 6	5,182	104	78	5	5,239	120	78	99
1922	618	12	5	- 14	5,187	135	90	- 26	5,338	181	133	- 16
1923	604	11	4	- 4	5,161	114	78	- 15	5,322	160	112	- 10
1924	600	11	4	0	5,146	98	62	0	5,312	143	95	0
1925	606	10	2	- 8	5,146	87	51	- 47	5,312	127	85	- 36
1926	598	12	4	- 13	5,099	92	51	- 46	5,348	134	75	- 109
1927	585	9	3	- 2	5,053	96	61	- 31	5,239	131	84	- 6
1928	583	9	3	- 3	5,022	95	55	- 15	5,233	141	83	- 47
1929	580	10	4	- 12	5,037	80	40	7	5,280	148	90	- 5
1930	568	8	3	2	5,030	80	45	7	5,275	142	89	73
1931	570	10	3	1	5,047	86	51	114	5,348	134	86	152
1932	571	11	0	17	5,161	93	57	103	5,508	184	99	182
1933	588	11	4	5	5,264	121	79	37	5,682	165	102	33
1934	593	11	3	2	5,301	117	75	- 27	5,715	160	109	60
1935	595				5,274				5,775			
Middle Atlantic					South Atlantic				Mountain			
1920†	1,893	4	- 17	- 12	6,417	173	128	57	1,168	32	20	- 18
1921†	1,881	36	28	- 11	6,474	220	188	52	1,150	51	45	- 25
1922	1,870	43	28	- 30	6,526	238	150	- 212	1,175	32	23	- 30
1923	1,840	40	25	- 19	6,514	202	139	- 103	1,245	27	20	- 16
1924	1,821	38	23	- 11	6,211	180	124	7	1,209	24	17	- 4
1925	1,810	34	16	- 16	6,218	168	100	- 148	1,225	26	12	- 15
1926	1,794	38	15	- 43	6,070	158	91	- 100	1,110	23	13	- 2
1927	1,751	30	12	- 21	5,910	165	124	32	1,112	27	18	0
1928	1,730	31	15	- 17	5,042	160	101	- 26	1,112	20	19	17
1929	1,713	33	14	- 21	5,016	116	95	- 52	1,120	28	20	- 7
1930	1,692	32	15	32	5,864	158	93	71	1,122	25	16	15
1931	1,724	29	15	17	5,935	166	119	90	1,137	24	18	37
1932	1,741	28	16	67	6,025	181	115	187	1,174	25	16	12
1933	1,808	36	14	15	6,212	174	106	62	1,186	33	22	2
1934	1,823	33	13	13	6,274	176	107	116	1,188	29	19	- 14
1935	1,839				6,390				1,174			
East North Central					East South Central				Pacific			
1920†	4,914	128	108	- 40	5,183	155	103	57	1,014	22	11	25
1921†	4,874	83	49	- 147	5,240	109	141	15	1,039	22	17	33
1922	4,727	132	94	- 49	5,255	158	116	- 82	1,072	19	11	- 19
1923	4,678	112	75	- 20	5,173	155	108	- 42	1,053	10	12	- 5
1924	4,658	93	56	5	5,131	149	98	- 5	1,048	23	16	10
1925	4,663	93	56	- 54	5,126	144	93	- 42	1,058	18	7	14
1926	4,600	92	55	- 74	5,084	153	97	- 77	1,072	13	3	17
1927	4,535	77	36	- 14	5,007	155	105	20	1,089	16	8	16
1928	4,521	81	36	- 79	5,027	141	81	21	1,105	21	11	7
1929	4,442	76	40	0	5,048	136	70	4	1,112	17	10	12
1930	4,442	80	40	79	5,052	147	86	105	1,124	20	12	22
1931	4,521	77	36	93	5,157	150	104	130	1,146	16	10	22
1932	4,614	88	46	208	5,287	159	111	185	1,168	14	8	40
1933	4,822	96	48	33	5,472	170	110	97	1,208	21	9	3
1934	4,855	97	48	34	5,549	155	100	61	1,211	19	7	21
1935	4,880				5,640				1,232			

* The data for the table are from "Farm Population Estimates, January 1, 1935," United States Department of Agriculture, Bureau of Agricultural Economics (press release May 2, 1935).

† Because of the method of sampling, the data for 1920 and 1921 are regarded as less reliable than the data for the other years.

‡ Determined from data on farm population on January 1.

§ The discrepancy between the figures for net increase for 1934 and the farm population on January 1, 1935, for the Middle Atlantic states results from a small error in the source.

If this trend is not modified by a conscious population policy, it will undoubtedly become necessary for the nation to devote an increasing proportion of its resources to the care of its rural youth.

AGE AND SOCIAL COMPOSITION OF FARM POPULATION

Thorntwaite¹ states that between 1920 and 1930 there was a net migration in this country of more than eight million persons from farms to cities. Fifty per cent of these persons were between ten and twenty years of age, and nearly 75 per cent were between five and twenty-five years of age in 1920. On the other hand, under conditions regarded as normal in the growth of industrial centers, there was some migration from cities of persons over forty-five.

Baker, senior agricultural economist of the United States Bureau of Agricultural Economics, gives a somewhat lower estimate of the net migration from farms to cities, but he makes the following statement about the origin of the migrating population.

About 60 per cent of this migration was from the South. Negroes constituted about one-third of this migration from southern farms. The net migration from the farms of Georgia was a half-million during the decade, which was 30 per cent of the farm population in 1920. In South Carolina the migration was about 31 per cent of the 1920 farm population. Texas lost a half-million also, which was nearly 23 per cent of the 1920 farm population. In Virginia, Maryland, West Virginia, Kentucky, and Tennessee the net migration between 1920 and 1930 exceeded 20 per cent of the farm population in 1920. This was true also in New Mexico, Montana, and Idaho, and in Utah it exceeded 34 per cent. In most of the northern states the net migration from farms ranged between 15 and 20 per cent of the 1920 farm population.²

In an earlier study of migration to all American cities with populations of over 400,000 in 1930, except Washington, D.C., the writer commented as follows on the age distribution of migrants and on the resulting social and economic drainage of rural communities:

More of the persons who migrated between 1920 and 1930 to the cities listed were in the early years of mature life (fifteen to thirty-four) than were in any other comparable age span. . . . Incidentally, in only five of the seventeen cities were the numbers of native-born persons under five years of age in the population as large in 1930 as the corresponding number in 1920, although in

¹ C. Warren Thorntwaite, assisted by Helen I. Slentz, *Internal Migration in the United States*, pp. 32-34. Philadelphia: University of Pennsylvania Press, 1934.

² O. E. Baker, *The Outlook for Rural Youth*, p. 4. United States Department of Agriculture, Extension Service Circular No. 223 (September, 1935).

each instance the total native population was considerably larger in 1930 than in 1920. . . .

In the case of a large . . . proportion of the native population, the community which carries the social and economic burden of rearing and educating an individual is not the community in which he lives his mature life and to which he makes his social and economic contribution. The fact that much of the migration has been from rural to urban communities means, of course, that rural communities have to a considerable extent paid the bills for rearing and educating the future productive citizens of the urban community.¹

The foregoing studies, particularly when the data in Table I are also taken into consideration, show that before the depression the farm population was decreasing; that through migration it was being drained of young adults; and that, partly because of this drain and its influence on the birth-rate, there was a decreasing percentage of children² and an increasing percentage of old people in the farm population.

The composition of the farm population at present is quite different from what it was before the depression. Baker states that the recent movement back to the farms "has been mostly of young people. Many of the parents of these young people or other relatives are still living on farms and in villages, but the old people in the cities have had no one to go to. Their parents, and in many cases even their friends, are dead."³ Most of the recent increase in farm population, however, has resulted from an accumulation on farms of young persons who under pre-depression conditions would have migrated to cities. Baker estimates that in the late summer of 1934 there were probably three million such young people "backed up" on farms. He adds that these young people are having children and that the number of children on farms is now increasing.⁴

Thompson's recent studies, although his estimates differ from Baker's, are in general accord with the foregoing statements:

¹ Harold H. Punke, "Educational Implications of a Mobile Population," *Elementary School Journal*, XXXIII (March, 1933), 525-26.

² Baker (*op. cit.*, p. 17) states that during the decade preceding the depression the number of children under five years of age on farms decreased 16 per cent.

³ O. E. Baker, *op. cit.*, p. 8.

⁴ The extent to which the farm factor contributes to the increase in marriage rate from the low of 7.9 per 1,000 population in 1932 to 9.8 per 1,000 population in 1934—the highest since 1929—is difficult to estimate. See Warren S. Thompson, *op. cit.*, p. 715.

It is interesting to note that from one-half to five-eighths of our total natural increase is now found in the farm population, although this group constitutes just about one-fourth of the total population. It is probable that on January 1, 1935, the farm population was about 32,750,000. This was an increase of about 2,600,000 since 1930, most of which was due to the natural increase of the farm population being kept at home because of lack of opportunity in the city. Since 1930, for the first time in our history, the proportion of our people on the farm has begun to increase.¹

It is apparent, then, that fundamental changes in the social composition of the farm population have been taking place since the onset of the depression. Before the depression both the number of persons on farms and the percentage that the farm population was of the total population were decreasing, but now the number of persons on farms and the percentage are increasing. Moreover, the farm population has changed from one with an increasing proportion of old people and a decreasing proportion of young adults and children to a population with a decreasing proportion of old people and an increasing proportion of young adults and children. In the urban population, on the other hand, the average age is advancing more rapidly than before the depression because of a low birth-rate and small net migration from rural communities.² The resumption after economic recovery of migration from rural to urban communities would, of course, modify the character of the changes mentioned. The extent to which such migration would affect rural population would be influenced by such factors as dispersion of industry into smaller communities, commuting, part-time farming, etc.

EDUCATIONAL IMPLICATIONS OF POPULATION CHANGES

One educational implication of the population changes here considered relates to instruction in vocational agriculture. The accumulation of young adults on farms should be kept in mind. It should be noted, too, that agriculture has experienced a depression of varying severity since the early twenties, largely as a result of producing more than the markets have absorbed. Numerous legislative attempts have been made to lessen the difficulties of farmers. The

¹ Warren S. Thompson, *op. cit.*, p. 719.

² In spite of the large net migration from rural communities during the period 1920-30, the proportion of the urban population over sixty years of age increased from 7.0 per cent in 1920 to 8.2 per cent in 1930 (*Abstract of the Fifteenth Census of the United States*, Table 104, p. 188).

accumulation of young producers in an industry already suffering from overproduction is likely to lower the material standard of living of those engaged in the industry. Such an accumulation means that whatever commercial markets there are will have to be shared by a larger number of commercial producers and, consequently (leaving out of consideration the recent movement for subsistence and part-time agriculture for the urban unemployed), that an increasing proportion of the farm population will come to live at a bare subsistence level. Agriculture of this kind is comparable to the peasant agriculture found in some older civilizations. Something might be done, perhaps, to stay such a decline in the attractiveness of farm life if the educational program were to place more emphasis on the human satisfactions which are not directly dependent on cash income and less emphasis on techniques of increasing the output of farm products. Some agricultural and country-life groups maintain vigorously that farm life holds the possibility of lasting satisfactions independent of income, which many farm inhabitants never experience. It becomes the task of agricultural educators, then, to determine what those satisfactions are and to teach farm folk to enjoy them.

A more far-reaching implication of the population changes considered relates to the school child of the next generation and to the extent of the program of formal education. The farm population, it has been shown, is supplying more than half the natural increase in population in the whole country, and the natural increase among the farm population of the South is more rapid than that in any other section of the country. (Students of population, of course, know that this situation has not grown up within the last few years but has been gradually developing over a considerable period of time.) The educator, then, who would try to understand the kinds of homes from which the majority of the rural children of school age in the next generation will come should try to picture the farm homes of the South at the present time.

Illiteracy in the rural South, among both races, is higher than that in the nation as a whole. The wealth per capita is low compared with that of other sections of the country.¹ The school terms are short, and, with the exception of Maryland, the states of this sec-

¹Harold H. Punke, "Periodical Literature in Adult Education," *Educational Administration and Supervision*, XX (March, 1934), 216-26.

tion in 1930 spent for education from one-third to two-thirds as much per pupil enrolled as was spent per pupil in the country as a whole.¹ The percentage of the population of seven to twenty years of age which is attending school is lower for all the southern states, except Oklahoma, than the average for the country.² The circulation of magazines and newspapers is lower,³ and the percentage of families owning radios is lower, in the South than in most sections of the country.⁴ Baker states that the "average value of farm dwellings in the South in 1930 was only about six hundred dollars—less than half that in the North. Only one farmhouse in twenty-five in the South has electric lights and only one house in thirty has a bathroom."⁵

Several of the statements in the foregoing paragraph refer to the South as a whole or to states as wholes rather than specifically to the farm population of the area concerned. The assumption seems entirely justifiable, however, that, with regard to these and probably other measures of culture, the status of the farm population is no higher than that of the general population. The important point is that among the farm population in the South, where the natural increase is higher than that in any other large section of the country, the standard of living is, in general, lower than that of any other large section. School children who come from such homes in the future will not have had the opportunity to learn at home a great many of the things which children learn in homes with higher standards of living. Accordingly, the residual function of formal education becomes very great. Thus, the trend in population growth, namely, the recruiting of the next generation disproportionately from the underprivileged of the current generation, places a demand on the schools for a more comprehensive program of

¹ All the states which in 1930 had an average school term of less than 160 days are in the South. See "Public Elementary and Secondary Education in 1930," *Journal of the National Education Association*, XXI (April, 1932), 126.

² "Population at Various School Levels and Number Attending School According to the 1930 Census," *Journal of the National Education Association*, XXI (January, 1932), 34.

³ Harold H. Punke, *op. cit.*

⁴ Ellwood P. Cubberley, revised by Walter Crosby Eells, *An Introduction to the Study of Education*, p. 378. Boston: Houghton Mifflin Co., 1933.

⁵ O. E. Baker, *op. cit.*, p. 6.

formal education than would be needed if the next generation were recruited more evenly from the different social groups of the current generation. Our educational policy and our biological drift tend to work at cross-purposes: on the one hand, our educational and social institutions do a great deal to make underprivileged children and youth useful members of society; on the other hand, we recruit most of the next generation from the strata of society that need to have a great deal done for them by educational and social institutions.

A further implication of the types of population change discovered relates to the support of the school program. If the farm population increases, with a resulting increase in competition among the members of the industry, there will appear a lowering of the economic status of the farm population at a time when there is an increase in the proportion of children in that population to be fed and clothed. Clearly, this situation will reduce below its present level the ability of rural areas to support education. Since large sections of the country where children are numerous fall in the category here described as rural, in which per capita income is low, it follows that, if the children of these areas are to secure adequate education, the federal government will have to provide it. The states able to provide education on the basis of small units of support have small child populations, and the states with large child populations are unable to provide education on the basis of small units of support.

Furthermore, federal support for education, whereby the urban communities help pay for the educational program of the rural communities, should not be given on the basis of charity and sympathy of urban folk for their poor country brethren. It should be given on the basis of economic justice and social safety. The migration of young adults to cities, after they have been reared and educated at the expense of the country, results in an economic drainage of the country for the benefit of the city. If through migration a large percentage of the population of the cities in each generation is drawn from the country, the city, as a matter of self-protection, should be interested in the education provided for its future citizens while they are spending their childhood and early youth in the country. The only agency of sufficient scope to make the necessary adjustments is the federal government.

AN EVALUATION OF MANUSCRIPT WRITING

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INTRODUCTION OF MANUSCRIPT WRITING INTO THE SCHOOLS

In the last decade of the nineteenth century a new style of writing was proposed, backed by certain scientific facts and some convincing arguments. Physicians and students of school hygiene brought evidence to support the contention that the type of writing in vogue conduced to eyestrain and curvature of the spine. They advocated the substitution of vertical writing, written with the paper directly in front of the pupil and square with the desk, the pupil facing the desk with both arms resting equally on it. The arguments were widely accepted, vertical writing was widely adopted, and millions of pupils switched from slanting to vertical style.

The fashion did not last long. After about two decades nearly all school systems had turned back to slanting writing. School men had discovered that, while certain scientific facts favored vertical writing, other equally scientific facts were unfavorable to it. It was discovered by experience, and the discovery was confirmed by motion-picture studies, that a smooth, easy writing movement requires that the hand swing across the page with the elbow as a center and the forearm as a radius. This motion requires that the paper be tilted. It was further discovered that the essential demands underlying vertical writing, namely, that the paper be directly before the writer and that the writer face the desk squarely with both arms resting symmetrically on it, could be met with slanting writing. Consequently, in the return to slanting writing modifications were made to incorporate these conditions.

Meanwhile, a generation of children had had their handwriting habits uprooted and disorganized. The teaching profession had learned by the costly method of wholesale practical experimentation what might have been found out by systematic and comprehensive

study and evaluation of all the facts in the problem. Some scientific study was made, to be sure, but it was too narrow and too one-sided to constitute a safe guide to practice.

The case of vertical writing has been described at some length because it furnishes a close analogy to that of manuscript writing. Manuscript writing is advocated by enthusiastic and progressive teachers and is backed by some scientific evidence. It has been adopted by some private schools and a few of the smaller public-school systems, but it has not up to now swept the country as did vertical writing. Mindful, perhaps, of the case of vertical writing and influenced, possibly, by the general scientific temper of the time, the educational profession has adopted a policy of watchful waiting until evidence could be assembled which would make possible a deliberate and balanced appraisal. A great deal of evidence has now accumulated, and it may be appropriate to undertake to evaluate the evidence and to judge whether manuscript writing has made good its claim to adoption or whether, perhaps, it should be used in a limited way and some of its characteristics be incorporated into the conventional cursive writing. We may first consider briefly the claims made in support of manuscript writing.

HISTORICAL ARGUMENTS ADVANCED FOR MANUSCRIPT WRITING

The first claim is based on historical argument. The basic historical fact is that modern handwriting is derived from an informal style of writing used for everyday communication which existed alongside the more formal and careful style of writing used for making books and permanent records. The existence of the two styles of writing from "time immemorial" is clearly brought out by the authority on paleography, E. A. Lowe:

From time immemorial there have existed the two kinds of script our specimens show: the set and the free, the formal and the unlabored, the painstaking book script and the quick, flowing cursive hand of everyday life. The two answered different purposes, their exigencies differed. What printing is to us, the formal script was to the generations before printing was invented. And the cursive of the notaries corresponded, roughly speaking, to our modern handwriting.¹

¹ Roger Fry and E. A. Lowe, *English Handwriting*, p. 93. S.P.E. Tract No. XXIII. London: Oxford University Press, 1926.

Cursive writing, then, came into being in response to the demand for an easy, flowing style, and the fact that it existed parallel to the formal "book script" shows, so far as historical evidence can show, that it is better suited to informal writing than is the "book script," or manuscript writing.

The advocates of manuscript writing seem to imply that modern cursive writing was developed to meet the requirements, or at least the convenience, of copperplate engraving. There are two versions of the argument. One, given by Miss Wise,¹ traces "the probable causes which led to the development of our modern running hand" to the use of copperplate engravings for the preparation of copy-books for the teaching of writing after the "Revival of Learning." The influence of engraving led to the joining of letters, to the elaboration of capitals, and to the increase in slant. A somewhat less radical influence is attributed to the engraver's art by Professor James Shelley, who is one of the authorities cited by Miss Wise, in an article quoted in *Manuscript Writing and Lettering*:

When education became generally recognized as of national importance early in the nineteenth century, and handwriting became an important factor in such education, the printed characters of books were unsuited to the work of the pen, the traditions of manuscript writing in the Middle Ages had been practically lost, and teachers, when deciding upon the forms of the written letters, instead of inquiring into the basic principles upon which the art of handwriting should be developed, and attempting to determine the necessary conditions which should govern lettering, took over for imitation the results of another and quite different art which happened to be fashionable, namely, the art of engraving letters upon copperplate and printing therefrom.

It will be as well to demonstrate clearly that the imitation of copperplate writing which has for many years dominated school work . . . is both inartistic and non-utilitarian.²

Professor Shelley does not attribute cursive writing as a whole to engraved copies, but only certain extravagances of the forms current in the nineteenth century. However, he somewhat inconsistently advocates going back not to a simpler cursive style but to the formal "book script," which never was used for informal writing. If it is true that the former cursive writing was corrupted by the art of the en-

¹ Marjorie Wise, *On the Technique of Manuscript Writing*, p. xv. New York: Charles Scribner's Sons, 1924.

² *Manuscript Writing and Lettering*, pp. 29-30. London: Sir Isaac Pitman & Sons, Ltd. (second edition).

graver, the logical remedy would seem to be to go back to the style which was so corrupted and not to return to a quite different style which was used for making books rather than for everyday communication. As a matter of fact, the faults which are complained of—the elaborate flourishes, extreme slant, and, in some cases, excessively long loops and angular forms—had already been eliminated from all modern writing, particularly from American writing, before manuscript writing came into fashion in the schools.

Correct historical interpretation, therefore, does not validate the claim of manuscript writing as a form to supplant cursive writing as a general style of writing. If manuscript writing has a valid claim, it will have to be based on other grounds.

SCIENTIFIC COMPARISONS OF MANUSCRIPT AND CURSIVE WRITING

To explain the historical fact that two styles of writing grew up, a formal style used in making books and the informal cursive style used in everyday communication, it is necessary to make an experimental analysis of the movement used in writing the two styles. Such an analysis was made by William H. Gray,¹ who took motion-picture photographs of a number of writers who wrote both manuscript and cursive with facility. He found several fundamental differences between the two. The most striking difference is that the pen stroke in manuscript writing is slower and more uniform in speed than in cursive writing. In the cursive writing the pen stroke becomes much more rapid in the middle of the longer lines. It slows down, of course, at the sharp turns in the letters. To put the difference in another way, the manuscript writing is done with a rather slow, drawing movement, whereas the cursive writing is done with a more rapid and a more free, swinging stroke. This free stroke is made possible by the modification of the forms of the letters produced by joining them together. As a result there are fewer places where there is a sharp change in the direction of the stroke, with a consequent slowing-down or pause. Contrary to what might be expected, the actual lifting of the pen does not slow down the stroke. Slowing-down is caused rather by the form of letters, requiring nu-

¹ William Henry Gray, "An Experimental Comparison of the Movements in Manuscript Writing and Cursive Writing," *Journal of Educational Psychology*, XXI (April, 1930), 259-72.

merous changes in direction. An example is the letter *e*. In manuscript writing the first stroke is horizontal and the circular stroke which forms the main outline of the letter meets this horizontal stroke at a sharp angle. In cursive writing no such angle exists.

The lines and strokes of manuscript and cursive writing have been contrasted from the point of view of the movements used in producing them. A corresponding contrast is presented by their appearance. Because the strokes of manuscript writing are at more clear-cut angles to each other, the forms of the letters are more clearly defined. In cursive writing, on the other hand, as the movement of one stroke changes gradually into that of the next, so the forms of the letters tend to blend into one another. The consequence is that manuscript writing is more legible than is cursive, particularly if an attempt is made to distinguish the individual letters. If it is necessary only to distinguish the word wholes in a familiar language, the difference in legibility is much less. It should be noted that the superiority in legibility of manuscript writing is marked only when the original or pure manuscript style is used. When this style is modified to approach cursive writing by slanting it and changing the forms of the letters, greater speed can be attained but the superiority in legibility is lost.

As a final style of writing, then, cursive is more rapid and somewhat less legible than is manuscript writing. The superiority in speed is sometimes denied, and figures are given to show that manuscript writing is the more rapid. The contradiction is only apparent and is due to the fact that comparisons are sometimes made with younger children and sometimes with older children and adults. Kimmins,¹ for example, gives the results of tests of 9,264 girls who had written manuscript writing for two years or more. He finds that the younger children write the manuscript style the faster, whereas by thirteen years cursive writing becomes faster. The same contrast was found by Turner,² Gray,³ and Gates and Brown.⁴ It may be ac-

¹ Marjorie Wise, *op. cit.*, p. xi.

² Olive G. Turner, "The Comparative Legibility and Speed of Manuscript Writing and Cursive Handwriting," *Elementary School Journal*, XXX (June, 1930), 780-86.

³ William Henry Gray, *op. cit.*

⁴ Arthur I. Gates and Helen Brown, "Experimental Comparisons of Print-Script and Cursive Writing," *Journal of Educational Research*, XX (June, 1929), 1-14.

cepted as a fairly well-established fact, then, that manuscript writing is faster in the writing of younger children and that cursive writing is faster in the writing of older children and adults.

USE OF MANUSCRIPT WRITING IN EARLY GRADES

This fact introduces a new angle to the problem. Thus far in this discussion manuscript and cursive writing in general have been under comparison. It now seems that consideration must be given to the adjustment of writing to the capacities and the needs of younger and older children separately. The conclusions which have thus far been reached apply to the writing of older persons and may need to be modified in reference to young children. Since the emphasis in the early stages of writing is on learning to form the letters correctly and in the later stages on acquiring fluency and speed, it seems quite possible that manuscript writing may be better for one stage and cursive writing for the other.

Examination will be made, therefore, of the evidence concerning the suitability of manuscript writing to the child in the early grades. It has already been noted that young children write the manuscript style more rapidly than the cursive. This fact indicates that it is easier for them to learn manuscript writing. Why manuscript writing should be easier to learn is not difficult to understand. Since the letters are separated, each letter stands out as a distinct unit of perception, and the unit of perception is smaller, being the letter rather than the word. The unit of movement is also shorter. Furthermore, the child does not have to learn to make the connecting strokes. These strokes, besides being additional elements to write, vary somewhat according to the letters which are being connected, whereas the separate letters are constant and invariable. Again, the connecting strokes change somewhat the appearance of the letters themselves. Finally, the manuscript letters resemble printed letters, and the child's familiarity with the printed letters is therefore a greater help in learning manuscript than in learning cursive forms. The earlier acquisition of skill in writing the manuscript style gives the child an earlier facility in expressing himself in writing and therefore hastens the growth of ability in written composition.

The relation between manuscript writing and reading is mutual.

Voorhis¹ has shown that the use of manuscript writing in Grade I definitely hastens the growth of the ability to read. The gain is so pronounced as to be unmistakable. Because of the great importance of reading, this fact must be given due weight. It is reported by teachers, on the basis of observation rather than experiment, that manuscript writing also favors growth in spelling. This result seems very probable from the effect of manuscript writing on reading. It is also reported that children show more enthusiasm for manuscript writing in the early grades. This attitude may well be the consequence of the greater ease with which they learn it.

If manuscript writing is better for the young child and cursive writing for the older pupil, can the problem be solved by beginning with manuscript and changing over to cursive writing? This plan immediately suggests the objection that such a change may entail serious difficulty and loss of skill. Fortunately, evidence is available on this point. Studies by Winch² and by Gates and Brown³ show that, if the change is made not later than Grade III, it can be accomplished with little retardation in progress. If the change is delayed until the writing habit has been firmly fixed, the acquisition of the new style is more difficult. Goetsch's comparison of the writing in the later grades of children who started with manuscript and cursive writing, respectively, while not altogether conclusive, indicates that the early use of manuscript writing has no detrimental effect on the later writing of cursive.⁴

REPORTS MADE BY PRIMARY SUPERVISORS ON CURRENT PRACTICES
AND ADVANTAGES AND DISADVANTAGES OF
MANUSCRIPT WRITING

In addition to the evidence from scientific experiment which has been cited, it is also worth while to consider the trend of practice and

¹ Thelma G. Voorhis, *The Relative Merits of Cursive and Manuscript Writing*. Lincoln School Research Studies. New York: Lincoln School of Teachers College, Columbia University, 1931.

² W. H. Winch, "Print-Script and Cursive-Script in Schools: An Investigation in Nervo-muscular Readjustments," *Forum of Education*, IV (June and November, 1926), 123-38, 206-22.

³ Arthur I. Gates and Helen Brown, *op. cit.*

⁴ Walter Robert Goetsch, "The Effect of Early Training in Handwriting on Later Writing and on Composition." Unpublished Master's thesis, Department of Education, University of Chicago, 1934. See also "The Effect of Early Handwriting Instruction," *Elementary School Journal*, XXXVI (December, 1935), 290-98.

the opinion of teachers and supervisors. To get information on these points, the writer sent a questionnaire to 360 primary supervisors. Replies were received from 218.

The most pertinent facts concerning practice may first be summarized briefly. Of those replying, about a fourth now use manuscript writing. The large majority of those who use it introduced it during or before 1931, fewer than a quarter having introduced it since that date. Evidently those who were not convinced of its value during the early period of propaganda are either awaiting further evidence or have made up their minds negatively. About 10 per cent of those who tried manuscript writing have discontinued using it.

TABLE I
GRADES IN WHICH MANUSCRIPT WRITING IS TAUGHT IN 49
SCHOOLS USING THAT STYLE OF HANDWRITING

Grades in Which Taught	Number of Schools	Grades in Which Taught	Number of Schools
I.....	13	I-VI.....	5
I-II.....	19	I-VII.....	1
I-III.....	6	I-VIII.....	0
I-IV.....	0	I-IX.....	1
I-V.....	0	Special.....	4

Probably the most significant fact concerns the grades in which manuscript writing is used. The distribution given in Table I shows that of forty-nine schools reporting on this point, thirty-two teach manuscript writing only in Grade I or in Grades I and II.

The opinions of the persons replying are given in Table II. It is significant to compare these data with the results of experiments and psychological analysis. The respondents were asked to list both the advantages and the disadvantages of manuscript writing based on their experience and conversation with other teachers or supervisors. It is evident that each of the first five advantages given by teachers coincide with an advantage found in the experiments. The sixth is obvious. It is clear also that the first three apply solely to writing in the early grades and that the fourth and the fifth apply more to these grades than to later years. So far as the disadvantages are concerned, it has been shown that the first, which is most often mentioned, is

not serious if the change is made early. It is far outweighed by the advantages. The second is based on misinformation so far as the primary grades are concerned, for investigation has shown that in these grades manuscript writing is faster. The third and the fourth are administrative difficulties which are not serious. The fifth can be overcome by proper methods of instruction and is not serious in the first two grades. The sixth does not apply to the primary grades,

TABLE II

ADVANTAGES AND DISADVANTAGES OF MANUSCRIPT WRITING REPORTED
BY FIVE OR MORE SUPERVISORS IN SCHOOL SYSTEMS USING IT

Advantages:	Number Reporting
1. Easier to learn, less fatiguing, and gives better writing (more legible and neat), easier to teach.....	40
2. Helps in early reading because of similarity of written and printed forms.....	34
3. Enables children much sooner to use writing as a form of expression.....	15
4. Pupils like it and take pride in it, appreciate good writing.....	11
5. Helps in spelling.....	8
6. Is an aid to lettering in art and map work.....	5
Disadvantages:	
1. Difficulty in changing to cursive.....	20
2. Slow or probably slow.....	8
3. Difficulty in transferring to schools which do not use it.....	7
4. Parents must be convinced.....	6
5. Less rhythmic and encourages finger movement and bad posture.....	5
6. Difficult to read cursive.....	5

where the children do not need to read cursive writing. So far as these opinions go, then, the advantages of manuscript writing in the early grades far outweigh the disadvantages.

TIME FOR MAKING CHANGE TO CURSIVE WRITING

If manuscript writing is taught in the early grades and cursive writing in the later grades, the question arises: When shall the change be made? A consideration of all the factors leads the writer to recommend that the change be made in the latter part of Grade II. The reasons for this opinion are as follows: (1) The advantage

of ease of learning would be lost if the pupils did not use manuscript writing long enough to be able to write it readily. (2) The advantage to reading probably extends into the second year. (3) The advantage in enabling pupils to express themselves freely in writing can be obtained only if the pupils write in manuscript style long enough to acquire some fluency. (4) The change should be put off until the pupil has become mature enough to have the skill to learn cursive writing easily; otherwise, there is no advantage in beginning with manuscript writing. (5) The change should be made before the habit of manuscript writing has become so firmly fixed as to make the change difficult. (6) The questionnaire sent to primary supervisors indicates that nearly all who begin with manuscript writing change to cursive writing in the latter part of Grade II, or at the beginning of Grade III. This fact shows that experience bears out the arguments given.

CONCLUSIONS

The conclusions and practical applications follow naturally from the facts which have been presented. They may be stated briefly: (1) Historical evidence, experiment, practice, and opinion indicate that cursive writing is better for the upper grades and for adult writing. (2) Experiment, the trend of practice, and the opinion of those who have used it indicate that manuscript writing is preferable for beginners. (3) The change should be made late enough to secure the advantages of manuscript writing as an initial style and early enough to minimize the difficulty of making the change. In the opinion of the writer, the point at which the change can probably best be made is the second half of Grade II.

A BASIC SIGHT VOCABULARY

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Teachers of all grades, from Grade II on, find pupils who have very small or no sight vocabularies. The teachers wish to remedy this condition by drilling on the sight words that will be of most value to these children in their reading. But which are those sight words? The vocabulary of a particular primer will not do because the child's reading is now chiefly in books other than the basal series with which he started and also because the vocabularies of most primers contain many words that, though needed at the primer stage, are later not of general usefulness. No standard word list will do because all such lists contain five hundred words or more, too many to be given drill as a sight vocabulary.

In view of these facts, it may well be assumed that the most essential of the words that are basic to children's reading, and therefore needed as a sight vocabulary, will surely be included in *all* the best lists of words used by children. A comparison of those lists was therefore the logical means of securing a basic sight vocabulary. The first list considered was naturally the vocabulary published by the Child Study Committee of the International Kindergarten Union,¹ which is a summary of many studies in this field. This list contains 2,596 words, which are the most frequent of 7,000 different words found to be known to children before entering Grade I. It was found that, if the words of a frequency of 100 or more (inflected forms being combined) were chosen from this list, a total of 510 words was secured, which is about the number of words on the other two lists which were used. The second list was the first five hundred of the Gates list,² which is too well known to need description and which has been used as a basis for many studies in reading vocabulary.

¹ Child Study Committee of the International Kindergarten Union, *A Study of the Vocabulary of Children before Entering the First Grade*. Washington: International Kindergarten Union (1201 Sixteenth Street, N.W.), 1928.

² Arthur I. Gates, *A Reading Vocabulary for the Primary Grades*. New York: Teachers College, Columbia University, 1926.

The third list was that compiled by Wheeler and Howell,¹ consisting of the 453 words most frequently found in ten primers and ten first readers published between 1922 and 1929. This list represents as well as does anything available the actual reading materials common in Grade I and therefore the vocabulary upon which, presumably, all later grade reading is built. Each of these three lists is compiled on a dictionary basis (that is, regularly inflected forms of a single root are combined), and a comparison of the three lists could easily be made. From this comparison the list on pages 458-59 was secured.

This list may well be called "basic" because it includes the "tool" words that are used in all writing, no matter what the subject. Conjunctions join clauses regardless of what the clauses are about; prepositions introduce phrases of every kind; pronouns stand for any and all persons and things; adverbs modify every kind of verb; and adjectives modify every kind of noun. Verbs denote action or being of every sort of subject, and the auxiliaries, practically all of which are included in this list, are used with all the verbs of the language.

This list is not perfect, since no list secured from frequency counts can be flawless. The chances of use that enter into frequency counts cause some unimportant words to secure higher frequencies than some more important words. For instance, "jump" cannot be considered a word of wide usefulness, yet on these vocabulary lists it ranked with words like "do" or "make." Perhaps the most unexplainable case is the word "cut." Word-counting will always give some such cases. Word-counting is also certain to leave out of a list some words of importance which should be included but which did not happen to be used often enough in the sampling of material counted.

If the criterion of appearance on all three lists had been rigidly adhered to, the twenty-seven words marked with asterisks would have been cut from the list. This elimination would have been unfortunate, since these words appear in the first 510 of the International Kindergarten Union list and in the first 500 of the Gates list. Many of these words obviously belong with others on the basic list. "Which" belongs with "who" and "that," "done" and "goes" belong with "did" and "go," "start" belongs with "stop," and "write"

¹ H. E. Wheeler and Emma A. Howell, "A First-Grade Vocabulary Study," *Elementary School Journal*, XXXI (September, 1930), 52-60.

A BASIC SIGHT VOCABULARY OF 220 WORDS, COMPRISING ALL WORDS, EXCEPT NOUNS, COMMON TO THE WORD LIST OF INTERNATIONAL KINDERGARTEN UNION, THE GATES LIST, AND THE WHEELER-HOWELL LIST

CONJUNCTIONS	they	where	some
and	this	why	ten
as	*those	yes	the
because	us		three
but	we	ADJECTIVES	two
if	what	a	warm
or	*which	all	white
	who	an	yellow
PREPOSITIONS	you	any	
about	your	*best	VERBS
after		*better	am
at	ADVERBS	big	are
by	again	black	ask
down	*always	blue	ate
for	around	both	be
from	away	brown	been
in	*before	*clean	bring
into	far	cold	buy
of	fast	*eight	call
on	first	every	came
over	here	*five	can
to	how	four	carry
under	just	full	come
*upon	much	funny	could
with	never	good	cut
	no	green	did
PRONOUNS	not	hot	do
he	now	kind	does
her	off	*light	*done
him	once	little	don't
his	only	long	draw
I	out	many	drink
it	so	new	eat
*its	soon	old	fall
me	then	one	find
my	there	*own	fly
*myself	today	pretty	found
our	*together	red	gave
she	too	right	get
that	up	round	give
their	very	*seven	go
them	*well	*six	*goes
these	when	small	going

* The twenty-seven words marked with asterisks were included in only two of the lists.

VERBS— <i>Cont.</i>	like	ride	thank
got	live	run	think
grow	look	said	*try
had	made	saw	*use
has	make	say	walk
have	may	see	want
help	must	shall	was
hold	open	show	*wash
*hurt	*pick	sing	went
is	play	sit	were
jump	please	sleep	will
keep	pull	*start	wish
know	put	stop	work
laugh	ran	take	would
let	read	tell	*write

with "read." The numbers under ten belong with the other numbers listed. For this reason these twenty-seven words are included in the basic list; they add a few that do not belong but more that seem as important as others on the list.

It is to be especially noted that this basic sight vocabulary includes no nouns. Nouns cannot be of universal use because each noun is tied to special subject matter. If new subject matter is used, new nouns must be used. Unfortunately, teachers have spent a great deal of energy in teaching the nouns in primers as sight words, and then, as the later books take up new materials, new nouns must be used and not those that have been learned. Perhaps one reason that many children in the intermediate grades do not know by sight the words on this basic list is that the emphasis on sight teaching has been on nouns instead of on these "tool" words. Some few nouns, such as "thing" or "man," do recur a great deal, but in the case of most nouns the rule applies that they are "local" to a particular activity or interest. The nouns common to the three lists are mainly local to young children's interests and to first-grade activities. They are in no sense basic to all elementary-school reading. That the reader may see this fact for himself, the list of nouns is given on page 460.

It is not claimed that the basic list of 220 words includes all the words that the elementary-school pupil should know by sight; the claim is only that he should at least know these. Consequently, when a child in any grade is found lacking in sight vocabulary, he should be tested to see which of these words he does know and should then

be trained to recognize instantly by sight the words that he does not know. For this purpose small cards with the words printed in primer type on both sides are most convenient. The cards can be flashed before the pupil by the teacher or by another pupil, any unknown word named for the subject by the tester (who sees the word on the reverse of the card), and the pack gone over again and again until all 220

95 NOUNS COMMON TO THE THREE WORD LISTS BUT NOT
RECOMMENDED FOR A BASIC SIGHT VOCABULARY

apple	day	home	school
baby	dog	horse	seed
back	doll	house	sheep
ball	door	kitty	shoe
bear	duck	leg	sister
bed	egg	letter	snow
bell	eye	man	song
bird	farm	men	squirrel
birthday	farmer	milk	stock
boat	father	money	street
box	feet	morning	sun
boy	fire	mother	table
bread	fish	name	thing
brother	floor	nest	time
cake	flower	night	top
car	game	paper	toy
cat	garden	party	tree
chair	girl	picture	watch
chicken	goodbye	pig	water
children	grass	rabbit	way
Christmas	ground	rain	wind
coat	hand	ring	window
corn	head	robin	wood
cow	hill	Santa Claus	

words are known with certainty. A daily record of words known can be used to show the learner a curve that indicates how he is improving. When the pupil recognizes these 220 words instantly and easily, he will have a "capital" of word knowledge with which he can attack any reading matter and, with guessing from context and perhaps some help from sounding, get something out of it. If his sounding is weak, training in that skill will complete the remedial process, and the pupil will be able to do the learning from books that school work demands.

SELECTED REFERENCES ON PUBLIC-SCHOOL ADMINISTRATION. II

WILLIAM C. REAVIS AND NELSON B. HENRY
University of Chicago

The January number of the *Elementary School Journal* presented selected references on general administration, state school administration, city school administration, and supervision. The references presented in this article are concerned with teaching staff, school finance, business management, and public relations. The period covered in the selection of the references is, with one exception, November 1, 1934, to October 31, 1935.

TEACHING STAFF

61. BETTS, GILBERT L. "The Influence of Teacher Tenure Laws on Supply and Demand," *Journal of Educational Research*, XXVIII (October and November, 1934), 118-31, 175-86.
Part I deals with the influence of tenure legislation on supply and demand in the several states. Part II analyzes differences in supply and demand in tenure and non-tenure states.
62. CALIVER, AMBROSE. "Some Problems in the Education and Placement of Negro Teachers," *Journal of Negro Education*, IV (January, 1935), 99-112.
Presents a survey report of the status of negro teachers and their opportunities for employment.
63. DUSHANE, DONALD. "The Superintendent and Tenure," *Journal of the National Education Association*, XXIV (May, 1935), 156.
Notes the acceleration of the tenure movement during the period of the depression and argues that schools in the six states having state-wide tenure have suffered less during this period than the non-tenure states.
64. ELSBREE, WILLARD S. "The Future of Teachers' Salaries and Salary Scheduling," *Teachers College Record*, XXXVI (March, 1935), 490-96.
Predicts improvement in the future economic position of teachers as a result of the organization of teachers themselves, the dissemination of information regarding the schools, and the regulation of the supply of teachers by the state.
65. FOSTER, RICHARD R. "The Economic Position of Teachers: Recent Trends and Present Status," *The Application of Research Findings to*

Current Educational Practices, pp. 59-65. Official Report of the American Educational Research Association, 1935. Washington: American Educational Research Association of the National Education Association, 1935.

Reports the results of an investigation by the Committee on the Economic Status of the Teacher of the National Education Association. The study is based on a sampling of 2,566 teachers.

66. GARBER, LEE O. "When and How Do Teachers Attain a Permanent Status under Tenure Laws?" *American School Board Journal*, XCI (July, 1935), 15-16.
Discusses court decisions dealing with the status of teachers under existing tenure laws and points out the import of the decisions.
67. GROVER, E. C. "A Brief Résumé of Studies on the Single-Salary Schedule," *American School Board Journal*, XCI (July, 1935), 26, 75.
An evaluation of the findings of the more important studies dealing with the single-salary schedule for teachers in city school systems.
68. HECK, ARCH O. "Recent Changes in Public-School Personnel Services," *Educational Research Bulletin*, XIV (September 18, 1935), 155-61.
Presents data on the changes since September 1, 1930, in the number of personnel workers in school systems in ninety-two cities.
69. LEWIS, E. E. "Desirable Practices with Respect to Leaves of Absence and the Improvement of Teachers in Service," *Official Report of the Department of Superintendence*, 1935, pp. 209-11. Washington: Department of Superintendence of the National Education Association, 1935.
States the principles which should control the granting of sabbatical leaves to teachers by city school systems.
70. MELCHER, GEORGE. "The Contribution of the Teaching Staff in the Formulation and Execution of Administrative Policies," *Official Report of the Department of Superintendence*, 1935, pp. 212-15. Washington: Department of Superintendence of the National Education Association, 1935.
Indicates the important respects in which the co-operation and the participation of teachers may be utilized in school administration.
71. MELCHER, GEORGE. "Ten Ways To Increase the Influence of Teachers," *Nation's Schools*, XV (March, 1935), 29-30.
Describes methods employed to secure greater participation on the part of teachers in such services as curriculum construction, textbook selection, school-building planning, and interpreting the schools to the public.
72. MURPHY, A. B. "What Shall We Do with Teacher Tenure?" *American School Board Journal*, XC (April, 1935), 14, 75.
Suggests a plan of solving the problem of teacher tenure without specific legislation.

73. NATIONAL EDUCATION ASSOCIATION, DEPARTMENT OF SUPERINTENDENCE AND RESEARCH DIVISION. (a) "Salary Schedules for Teachers, 1934-35; 60 Cities Over 100,000 in Population," Educational Research Service, Circular No. 11, 1934, pp. 28; (b) "Upward Trends in Teachers' Salaries," Educational Research Service, February 11, 1935, pp. 17 (mimeographed); (c) *Salaries of School Employees, 1934-35*, Research Bulletin of the National Education Association, Vol. XIII, No. 2, 1935, pp. 32; (d) "Teachers' Salaries in Suburban School Systems, 1934-35," Educational Research Service, Circular No. 2, 1935, pp. 26; (e) "Organization and Content, Teachers' Salary Schedules," Educational Research Service, Circular No. 6, 1935, pp. 56; (f) "Teachers' Salary Cuts and Restorations," Educational Research Service, News Bulletin No. 1, July 19, 1935, pp. 35 (mimeographed); (g) "Teachers' Salary Cuts and Restorations," Educational Research Service, News Bulletin No. 2, August 15, 1935, pp. 12 (mimeographed). Washington: Department of Superintendence and Research Division of the National Education Association.

A series of helpful reports on teachers' salary problems.

74. PARSONS, RHEV BOYD. "A Study of the Relation of Supply of Teachers to Demand for Teachers," *Elementary School Journal*, XXXVI (October, 1935), 97-104.

On the basis of a study of more than thirty thousand existing teachers' certificates, the author concludes that the apparent surplus of teachers in Tennessee is explained by present legal requirements for certification in the state. On the basis of recent trends in teacher education, the analysis indicates a definite shortage of adequately prepared teachers in that state.

75. *Recent Court Decisions on Teacher Tenure*. Washington: Committee on Tenure of the National Education Association, 1935. Pp. 62.

A helpful review of court decisions with respect to teacher tenure since 1932. Part II presents abstracts of sixty-nine important cases.

76. SCOTT, CECIL WINFIELD. *Indefinite Teacher Tenure*. Teachers College Contributions to Education, No. 613. New York: Teachers College, Columbia University, 1934. Pp. x+166.

Traces the development of indefinite-tenure laws and discusses their operation. Undertakes to ascertain what provisions should make up an indefinite-tenure law so that the greatest possible protection may be had for teachers, pupils, and society in general.

77. SNEDDEN, DAVID. "Personnel Problems in Educational Administration: Married Women as Public School Teachers," *Teachers College Record*, XXXVI (April, 1935), 613-21.

Discusses the controversial aspects of employment of married women as teachers during periods of general unemployment. The author considers that the subject is generally obscured by prejudicial judgments, and he regards dysgenic fecundity as the only important basis for opposition to married women as teachers.

78. STINE, MARK E. "In-Service Education for Teachers," *School and Society*, XLI (April 27, 1935), 582-84.

Considers the effect of regulations in the different states for the renewing of teachers' certificates and suggests that certificates granted on low preservice scholastic standards should be subject to gradually increased requirements for in-service education.

79. "Teacher Retirement Legislation in 1934 and 1935 to Date." Washington: Committee on Retirement Allowances of the National Education Association, 1935. Pp. 16 (mimeographed).

Summary of legislative proposals pertaining to teacher retirement made during 1934 and 1935.

80. *The Teacher's Economic Position*. Research Bulletin of the National Education Association, Vol. XIII, No. 4. Washington: Research Division of the National Education Association, 1935. Pp. 165-268.

This bulletin provides for the distribution of the complete report of the National Education Association Committee on the Economic Status of the Teacher. The committee gathered data from a variety of sources and gives a report on teachers' incomes and liabilities, commodity prices, trends in teachers' salaries, and comparative incomes of other occupational groups.

81. *Teacher Tenure Legislation in 1935 to Date*. Washington: Committee on Tenure of the National Education Association, 1935. Pp. 38.

Summarizes legislative enactments and proposals made in 1935 with respect to teacher tenure.

82. WOELLNER, ROBERT C. "Improvement of Personnel through Efficient Recruitment," *Elementary School Journal*, XXXV (November, 1934), 175-85.

Discusses problems incident to the selection of competent and desirable teachers for the schools. Indicates steps in the improvement of personnel and discusses such controversial questions as the employment of married women as teachers.

SCHOOL FINANCE

83. CAMMACK, JAMES W., JR. *Protecting Public School Funds in Kentucky*. Bulletin of the Bureau of School Service, Vol. VII, No. 4. Lexington, Kentucky: University of Kentucky, 1935. Pp. 216.

A historical review of legal provisions for protecting school funds in Kentucky and an explanation of recent legal requirements for accounting for school revenues and expenditures.

84. *Finance and Business Administration*. Review of Educational Research, Vol. V, No. 2. Washington: American Educational Research Association of the National Education Association, 1935. Pp. 121-84.

A digest of recent important contributions to the literature of several phases of school finance. The bulletin includes a carefully selected list of references bearing on each problem dealt with.

85. HAHNE, ERNEST H. "Economic Aspects of Federal Aid to Schools," *School and Society*, XLI (March 9, 1935), 313-21.
Regards federal aid to schools as but one phase of the general movement toward greater centralization of governmental functions and a necessary means of disentangling the public schools from the injustices of the general property tax.
86. JOINT COMMISSION ON THE EMERGENCY IN EDUCATION. *Schools and Taxes*. Washington: Joint Commission on the Emergency in Education of the National Education Association and the Department of Superintendence, 1935. Pp. 16.
Important statistics of school finance and taxation are presented in graphic form with brief explanatory comments.
87. MCPHERSON, W. B. "Let Us Not Be Deceived," *Nation's Schools*, XV (June, 1935), 27-28.
Considers the political dangers inherent in centralized control of education a serious objection to current proposals for federal aid.
88. MORRISON, J. CAYCE. "Five Principles Essential to Federal Aid for Education," *Nation's Schools*, XIV (November, 1934), 17-19.
Discusses federal aid in relation to equalization of educational opportunities and explains why control should be centralized primarily in the state organization.
89. MORT, PAUL R. "An Objective Basis for the Distribution of Federal Support to Public Education," *Teachers College Record*, XXXVI (November, 1934), 91-110.
A suggested plan for determining the educational needs of different states in terms of school-attendance or school-census data, together with a desirable correction for cost-of-living differences between urban and rural sections.
90. MORT, PAUL R. "Let's Remove the Mysticism from the Problem of Financial Control," *Nation's Schools*, XV (March, 1935), 27-28.
A plea for research to determine the nature and the effect of local control as a basis for consideration of problems pertaining to the support of schools.
91. MORT, PAUL R., and LAWLER, EUGENE S. *Taxation for Adequate Support of Educational Services*. Washington: American Association of University Women, 1934. Pp. 24.
A brief characterization of a selected list of problems pertaining to taxation and school support, together with a selected list of references for more extensive study of each of these problems.
92. MULLER, HELEN M. (Compiler). *Federal Aid for the Equalization of Educational Opportunity*. The Reference Shelf, Vol. IX, No. 8. New York: H. W. Wilson Co., 1934. Pp. 122.
A supplement to an earlier volume in this series containing reprints of selected articles and an up-to-date bibliography on the question of federal aid.

93. NATIONAL COMMITTEE FOR FEDERAL AID TO EDUCATION. "Reducing the Debt Load of School Districts: A Memorandum Relating to Federal Loans to School Districts." Washington: National Education Association, Educational Research Service. Pp. 28 (mimeographed).
A suggestive memorandum regarding the present school-debt situation and advantages and methods of refinancing school indebtedness.
94. RICHMOND, JAMES H. "The Responsibility of Government for the Support of Schools," *Nation's Schools*, XV (March, 1935), 21-23.
Argues that federal aid does not necessarily imply an unreasonable degree of control of public education. State lines are constantly being ignored by the federal government in relation to other public enterprises, and the federal government cannot neglect its obligation to the schools.
95. *School Finance Systems*. Series 1—State Systems: Elementary and Secondary Schools. Washington: Research Division of the National Education Association, November, 1934, January, 1935, and March, 1935 (three pamphlets).
A brief description of the plan of financing public education now in effect in each of the states.
96. SIMPSON, ALFRED D. "Influence of State Aid on School Support and Taxation," *The Application of Research Findings to Current Educational Practices*, pp. 54-59. Official Report of the American Educational Research Association 1935. Washington: American Educational Research Association of the National Education Association, 1935.
Discusses the state-aid plan in use in New York and considers some of the significant outgrowths of the state-aid problem in relation to school support and taxation.
97. TAX COMMISSION OF OHIO RESEARCH SECTION. "A Study of Revenue Receipts and Governmental Cost Payments of Counties, Cities, and School Districts of Ohio for the Years, 1929-1933." Columbus, Ohio: Tax Commission of Ohio, 1935. Pp. 45 (mimeographed).
An elaborate statistical summary of revenues and expenditures for governmental purposes in counties, cities, and school districts of Ohio.
98. VAN KLEECK, E. R. "School Finance and the Social Problems of Population and Health," *American School Board Journal*, XCI (August, 1935), 15-17, 68-69.
An excellent discussion of the interrelations of population changes, social problems, school administration, and finance.
99. WELLER, GERALD M. "A Plan for State Equalization of Capital Outlays for Public School Buildings," *American School Board Journal*, XCI (August, 1935), 23-24.
Advocates state aid in financing capital outlays in school districts and suggests the technique by which the results desired may be brought about.

BUSINESS MANAGEMENT

100. ARP, J. P. "A Plan for Selecting School-Building Equipment," *American School Board Journal*, XCI (July, 1935), 41, 74-75.
Considers the problems that are met by superintendents in the selection of school equipment and proposes a solution for these problems.
101. BALDWIN, HARRY G. "Why an Appraisal of School Property?" *American School Board Journal*, XC (April, 1935), 29-30, 72.
Discusses the importance of property inventories as a basis for the insurance program of a city school system.
102. CARR, WILLIAM G. "Salaries Paid School Custodial Employees," *American School Board Journal*, XC (June, 1935), 18, 50.
Summarizes the findings of the seventh biennial survey of salaries of school employees carried on by the Research Division of the National Education Association.
103. COOK, SAMUEL A. "The Allocation of Janitorial Man-Power to School Buildings," *American School Board Journal*, XCI (August, 1935), 27-29, 69.
Points out the need for effective utilization of man power in the operation of school plants and indicates the kind of data essential to the establishment of standards for custodial services.
- ✱ 104. FOWLKES, JOHN GUY. *Principles and Practices of Financial Accounting for Schools*. Milwaukee, Wisconsin: E. M. Hale & Co., 1934. Pp. xvi+238.
A helpful manual of public-school business practices and a suggested accounting system for school financial transactions.
105. GAISER, SAMUEL. "Organizing a School Supply Service Agency," *Nation's Schools*, XVI (September, 1935), 48-51.
Advocates centralized purchasing by a distinct agency as a means of securing better quality and better service in relation to school supplies and school equipment.
106. HERLINT, LESTER B. "Per-Pupil Costs for Operation of the School Plant in Large-City Systems," *American School Board Journal*, LXXXIX (November, 1934), 40-41.
Data valuable for comparative purposes in studies of school-operation costs are presented for 86 cities with populations of 100,000 and more.
107. HIBBERT, R. W. "The Purchase of School Supplies and Equipment," *American School Board Journal*, XCI (September, 1935), 42-44.
Considers the procedures to be followed in selecting and purchasing school equipment and supplies in large cities.
108. HIBBERT, R. W. "School-Supplies Management," *American School Board Journal*, XCI (October, 1935), 28-30, 75.

Deals with the more important practices in checking, storing, and distributing school supplies.

109. HOLY, T. C. "State Insurance for School Buildings," *Nation's Schools*, XVI (October, 1935), 60, 62.

Describes different plans of state insurance and self-insurance in certain city school systems and advocates this means of economy as a substitute for economy measures which affect the welfare of the pupils.

110. KULP, C. L. "Liability Insurance Coverage for Boards of Education," *American School Board Journal*, XCI (September, 1935), 30-32.

Discusses changes in laws with respect to liability of boards of education and indicates types of liability insurance to be carried.

111. LAMB, ALFRED C. "Standardization and Distribution of Custodial Supplies," *American School Board Journal*, XCI (July, 1935), 20, 73.

Presents the critical issues to be met in the standardization of custodial supplies and discusses the solution of these issues in the school system of Hamtramck, Michigan.

112. LINN, H. H. *Practical School Economies*. New York: Teachers College, Columbia University, 1934. Pp. xxiv+462.

A comprehensive discussion of financial administration of local school systems. An analysis of basic reasons for inefficiency and numerous suggestions of sound business procedures and effective measures of economy.

113. LINN, H. H. "Are Fire-Insurance Rates on Public-School Property Excessive?" *American School Board Journal*, LXXXIX (November, 1934), 25-26, 70.

This article shows that too large a proportion of the school budget goes to insurance premiums on property. Methods of reducing insurance costs without decreasing protection are indicated.

114. LINN, H. H. "The Effect of NRA Codes on School Buying," *American School Board Journal*, XC (May, 1935), 26-27.

Gives the returns from 126 school officials to a questionnaire on the effect of the NRA codes on school purchasing.

115. MISNER, FRANK M. *Extra Costs and Incidental Costs in the Erection of School Buildings*. Teachers College Contributions to Education, No. 624. New York: Teachers College, Columbia University, 1934. Pp. viii+80.

Characterizes the various types and causes of extra costs which commonly occur in connection with the construction of school buildings.

PUBLIC RELATIONS¹

116. COFFMAN, LOTUS D. "Education and Public Service," *Official Report of the Department of Superintendence*, 1935, pp. 134-38. Washington: Department of Superintendence of the National Education Association, 1935.

¹ See also Item 542 in the list of selected references appearing in the November, 1935, number of the *School Review*.

Describes the relation of education to public service as one of mutual dependence in the advancement of human welfare.

117. ENGELHARDT, N. L. "Community and School Plant Planning," *School Executive*, LV (October, 1935), 46-48, 66.

Suggests important considerations affording opportunities for close co-ordination of the educational program and community planning.

118. MOEHLMAN, ARTHUR B. "Difficulties in Interpreting the Public School to the Community," *Educational Method*, XIV (May, 1935), 403-9.

Points out and discusses seven difficulties that stand out sharply in an analysis of community relationships.

119. MUELLER, A. D. "Public Relations and the Principal," *Nation's Schools*, XIV (November, 1934), 34-36.

Considers various agencies open to the principal for establishing good relations between his school and the community. Explains how pupils and teachers, school publications, school exhibits, and special occasions may be employed to this end.

120. REEDER, WARD G. "The Place of the School Janitor in the Public-Relations Program," *American School Board Journal*, LXXXIX (November, 1934), 27-28, 71.

Reveals the school janitor in the rôle of a citizen and indicates the ways in which he may assist in promoting public relations.

121. SCHOONMAKER, N. B. "Public Schools and Politics," *American School Board Journal*, LXXXIX (November, 1934), 15-16.

Describes the methods used in Minneapolis, Minnesota, to mold public opinion with respect to adequate support of schools.

122. TITUS, CHARLES H. "The University and Its Public Relations," *Journal of Higher Education*, VI (January, 1935), 13-20, 58.

Discusses the concern of the trustees, president, administrative officers, faculty members, and students for the relations of the university and the public.

123. WALLER, J. FLINT. *Public Relations for the Public Schools*. Trenton, New Jersey: MacCrellish & Quigley Co., 1933. Pp. 112.

Analyzes in detail the best current practice in efforts to interpret to the people the aims and purposes of public education in the United States.

Educational Writings

REVIEWS AND BOOK NOTES

A study of the reading difficulties of adults.—The publication under review¹ is a frank and clear report of extensive and careful research concerning a matter of great importance for adult education. It should be read by all serious students of reading, readers, and the influence of books on public opinion. Together with the work of Dale, Tyler, Washburne, Vogel, Ojemann, Lewerenz, and others, it is the beginning of inquiries which, we may hope, will not stop until all the factors in sentences, paragraphs, chapters or articles, books, and series of books which determine how hard they are to understand have been discovered, studied in their relations to one another, and measured with respect to their influence alone and in various combinations.

Gray and Leary selected 48 paragraphs from books, magazines, and newspapers such as are read by many adults and found out how hard it was for 756 persons to read each understandingly. Their understanding was measured by determining their ability to select from five sentences the best statement of the gist of the paragraph and to select a sentence stating something which was definitely not said by the paragraph.

The 756 persons were almost all between 15 and 45 years of age, with a mean at 22.7. About a third had education beyond high school and about a tenth no education beyond Grade VIII. They displayed a wide range in ability to understand printed paragraphs, and the lowest 190 may safely be used as a sample of adults of low ability in this respect. For these 190 the 48 paragraphs varied in difficulty from some which about half the group understood to some which practically none of the group understood.

Each of the 48 paragraphs was measured with respect to the number of words not known to 90 per cent of sixth-grade pupils according to Dale's study, number of different words not in the 769 noted as "easy" words by Dale and Tyler, and various other measures of the vocabulary load. It was also measured with respect to average length of sentence, number of simple sentences, number of clauses introduced by relative pronouns, and various other indices of the com-

¹ William S. Gray and Bernice E. Leary, *What Makes a Book Readable: With Special Reference to Adults of Limited Reading Ability—An Initial Study*. Chicago: University of Chicago Press, 1935. Pp. xviii+358. \$3.00.

plexity of sentence structure. In all, 44 such possible symptoms of difficulty or ease were measured. Each symptom was correlated with the difficulty of the paragraph for the 190 poorest readers and with the other 43 symptoms. From these correlations teams of symptoms were chosen to predict the difficulty any given reading material would have for such a group of poor readers.

The best combination of eight symptoms properly weighted had a predictive correlation of .645, and any one of many combinations of four symptoms did nearly as well (.640 to .637 for nine such that were tried). Probably number of words not known to 90 per cent of sixth-grade pupils plus one suitable measure of complexity of sentence structure would give about .62, since the former alone gives .55. It is thus easy to predict to the extent of .60; but, as Gray and Leary frankly state, that is disappointingly low. The case is, however, not so bad as it seems at its face value, for all the correlations of the 44 symptoms are attenuated by the fact that they were computed for 48 paragraphs of 100 words each. If they had been computed for 48 sets, each of 2,000 words from a score of paragraphs of equal or nearly equal difficulty for the 190 poor readers, all the correlations with difficulty would have been higher, and some of them, such as those for "number of compound-complex sentences" and "number of clauses introduced by relative pronouns," would have been much higher.

Gray and Leary applied a team of five symptoms of difficulty (number of different words outside Dale's 769 easiest, fewness of personal pronouns, percentage of different words, average sentence length in words, and number of prepositional phrases) to 350 books (using 100 words from each chapter) and obtained scores ranging from 2.06 for Michael West's adaptation of *Robinson Crusoe* for the use of foreigners learning English to -.26 for Defoe's original *Robinson Crusoe*. The next easiest of the list are Stewart's *Country Life Readers*, Book I (1.84) and Book II (1.33), Garretson's *Home and Health in a New Land* (1.57), a modified *Silas Marner* (1.24), Brigham's *Box Furniture* (1.24), and Kirkpatrick's *Public Speaking* (1.22). The hardest books of the list are McBride's *Romantic Czechoslovakia* (.03), Allen's *Only Yesterday* (.06), Wister's *The Seven Ages of Washington* (.08), *Silas Marner* (.13), Mowrer's *Germany Puts the Clock Back* (.14), and Sullivan's *Our Times: The Turn of the Century* (.14).

Disbelievers in the use of objective symptoms will probably urge that the rating of the original *Robinson Crusoe* proves the inadequacy of such symptoms. Surely *Robinson* is not a very hard book to read, they will argue; surely there is something radically wrong with a scheme which rates it as the hardest of these 350 books and also rates *Little Women* (.42), *David Copperfield* (.16), *The Vicar of Wakefield* (.25), and *Swiss Family Robinson* (.34) as much harder than Lippman's *A Preface to Morals* (.56), Robinson's *The Mind in the Making* (.43), and Wharton's *Ethan Frome* (.68).

This criticism is unfair to Gray and Leary, whose modest claims for the prediction of difficulty are consistent with the facts that they report, but it suggests two instructive facts. The first is that the ease of getting the gist of a chapter or of a book may be imperfectly correlated with the ease of getting the

gist of one-hundred-word units of it, one at a time. The latter is, of course, important for the former, but a person may understand each bit as he reads it and still not understand the larger total message of a sequence of bits; and he may miss the points of many of the separate bits and still understand fairly well the general argument or description or narrative. The second is that measures of the complexity of sentence structure by the length of sentences need protection against changing customs of punctuating and of interpreting punctuation. Defoe, for example, often used semicolons in cases where a modern writer would not. The custom of separating closely related sentences by a semicolon instead of a period may increase ease of reading if the reader is accustomed to the practice but increase difficulty if he is accustomed to taking as a unit whatever begins with a capital and ends with a period. For this and other reasons it seems probable that some other symptom of complexity of sentence structure will be found preferable to sentence length as measured by any simple and easy method.

Regardless of doubts concerning one or another particular of the report, impartial students of the problems of reading will accept its conclusions that a large proportion of American adults cannot enjoy or profit by a large fraction of even supposedly simple and popular books because they cannot get their meanings paragraph by paragraph, much less combine these into the expected appreciation of the books' total messages. A better technique of writing books for the dull and ignorant and unskilled in reading can be discovered, and men of science and letters may find it their duty to use it.

Gray and Leary present a valuable census of opinions of librarians, publishers, and others concerned with adult education about the qualities causing readability, and valuable data concerning the abilities of various groups of readers, and other matters—all of which I must leave without comment.

EDWARD L. THORNDIKE

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How to evaluate books.—During this period of decreased budgets librarians have found that more careful evaluation and selection of books compensates, to some extent, for the decrease in funds. They and others who compile lists of books for purchase or for other purposes will welcome a helpful volume² by an author of long and rich experience as a teacher in the Library School of the Los Angeles Public Library, the School of Librarianship of the University of California, and the School of Library Service of Columbia University, and as managing editor of the *Library Journal*.

The work is described by the author as "an introductory presentation centering on aspects that relate to general book use through library service; to princi-

² Helen E. Haines, *Living with Books: The Art of Book Selection*. Columbia University Studies in Library Service, No. 2. New York: Columbia University Press, 1935. Pp. xiv+506. \$4.00.

ples and methods developed in the practice of book selection for libraries; to use of the simpler bibliographical aids; to the more obvious information essential to librarians concerning series, editions, publishers, and characteristics of standard and current publications; and to survey and synthesis of leading classes of literature" (p. vii).

The carefully selected content is logically organized. The first three parts of the book deal with the relations existing between persons and books, tests of book values, standard aids in selection, the art of book-reviewing, the qualities of a good review, the use of book reviews in book selection, principles and methods of book evaluation, the writing of annotations, the history of book production, the physical makeup of the book, censorship, copyright, present-day American publishing and publishers, editions, reprints, series, translations, and many related topics. Part IV, which constitutes more than half the book, treats the literature of various fields, including, among others, biography, history, science, religion, philosophy, sociology, poetry, fiction, and drama. The historical treatment of the literature of each field is supplemented by helpful descriptions of the more important bibliographical aids. The discussion of each subject is followed by a list of fifty books representing many aspects of the field.

Although a compendium of information concerning books, the volume is entirely readable. The author's contagious enthusiasm for books is reflected throughout. The book may be used as a starting point in bibliographical or reference work in several fields, as an aid in the selection of books for libraries, and as a guide for the reading of laymen. The type, paper, leading, binding, and symmetrical arrangement of the printing contribute to make the book legible and aesthetically pleasing.

HERMAN G. RICHEY

Functional English in the upper grades.—A new series of language books¹ is a continuation of the Daily-Life Language Series for the elementary grades by the same authors. The materials for Grades VII and VIII have been enriched in content and in the variety of pupil activities, although the same general procedures have been followed.

The authorship is most excellent; in fact, it seems an extravagant use of talent to place three such names on one language series since any one of these authors—Lyman, Johnson, or McGregor—would be accepted by the members of the profession as an authority in the field of English and would attract friendly consideration of the product.

The authors state that in the preparation of the series they were guided by three key ideas—guidance, individualization, and socialization—all of which

¹ R. L. Lyman, Roy Ivan Johnson, and A. Laura McGregor, *Daily-Life Language Series: Guidance in Expression*, pp. xviii+398, \$0.92; *Effective Communication*, pp. xviii+430, \$0.96; *English in School, Home, and Community*, pp. xvi+462, \$1.20. Boston: Ginn & Co., 1935.

are significant in the junior high school. The series is described by the authors as a general language course, including usage, grammar, and oral and written expression. It is interesting to note how they have attempted to knit all the component parts of expression into a harmonious whole. To portray these interrelationships naturally in a course of study is difficult, and even more difficult in textbooks, because one can never foretell the best method of presenting the materials in actual classroom situations.

Each book of this set is organized into a series of chapters, from nineteen to thirty in number, each pertaining to a particular phase of expression. In certain chapters grammar predominates. For example, "The Sentence and Its Parts," "Using Verbs in Sentences," and "The Predicate Verb" are typical chapter headings. Other chapters relate to the so-called "functional centers" of expression: "Using the Telephone," "Messages by Mail," "Story-telling," and "Preparing Oral Reports." The chapters, in turn, are divided into sections. For example, the chapter on "Using the Telephone" is divided into the following divisions: "A Useful Servant," "Reading about the Telephone," "Good Manners in Telephoning," "Correct Form in Telephone Conversation," "Telephoning to a Friend," "Speaking Clearly," and "A Personal Experience." In practically every chapter there is a section headed "Special Drills and Skills," providing practice exercises in punctuation, capitalization, correct usage, using a dictionary, and the application of principles of grammar and expression which have been developed previously. Of necessity, the sequence of the activities is arbitrarily fixed, and the integration of the grammar, oral and written expression, and technical essentials, such as punctuation, capitalization, handwriting, spelling, and mechanics of speech, is left to the teacher. Grouping the material into large divisions might have made it possible to show better the relations between the different phases of the subject and to give the pupil a better perspective. Since there is a detailed table of contents and since the books are well indexed, a good teacher should not have great difficulty in varying the sequences by selecting the materials which suit the occasion at a particular time. Because the work in grammar is cumulative and there is definite provision for systematic review, this sequence should not be disturbed.

A rather noteworthy feature in the physical makeup of the books is an attempt to reflect to the teacher certain suggestions concerning classroom organization. At the beginning of the different sections in the chapters such phrases as the following are inserted in parentheses to suggest the purpose for which these sections are intended: *Written assignment*, *Class study*, *Individual work*, *Reading aloud*, *Volunteer work*, and *Class discussion*. These should prove to be helpful and, with other features, tend to guide the pupil in his study and make him increasingly independent in his work.

Special aids and devices are provided for development of vocabulary, use of the dictionary, development of a feeling for phrasing, and development of effectiveness in sentence structure. Opportunities are afforded the pupil for discovery of his language needs, self-appraisal of achievement, and remedial

practice in terms of discovered needs. Above all, a most praiseworthy effort has been made to motivate the language activities so that the pupil will recognize and appreciate the value of a good command of the English language and really want to improve his expression ability.

The various principles of grammar and expression are especially well developed. Some of the illustrations have been written by junior high school pupils. These should be more appealing and provide more reliable standards than models written by adults. It would appear that even a larger amount of such material could have been used profitably.

The authors wisely did not attempt to organize the language activities with respect to content. While such a plan is highly desirable in classroom procedures, such a detail must be worked out by the teacher in co-operation with the pupils as the lesson plans are made from day to day. The "center of interest" in social studies or science will govern the content to be used as the basis for conversation, oral or written reports, stories, floor talks, etc., but the language activities will be planned with reference to the technique in carrying on a conversation, writing a report, or telling a story. The authors evidently considered this very possibility since the procedure in preparing a social-studies report is clearly set forth as follows: "Step I. Gather information from many sources. Step II. Organize your information by making an outline. Step III. Write a first draft. Step IV. Correct the first draft. Step V. Make a finished copy" (*English in School, Home, and Community*, p. 164). This general procedure, together with the more detailed suggestions given, may be developed in relation to any definite subject of particular interest at the moment and may be referred to every time a similar task is assigned to the pupil until the technique is finally mastered. Thus, the authors have reflected the possibilities for correlating language with social studies but have wisely kept the language skills, not the content, prominent.

In like manner, in the ninth-grade book language tasks have been planned with respect to educational and vocational guidance, correlation with the guidance program being demonstrated. Others have been worked out with relation to "Using English in the World of Business," which may be correlated with the junior business course. Such illustrations should prove suggestive to the wide-awake teacher and yet offer latitude in working out the details of the program.

The series reflects excellent scholarship. It represents new thought in a language program for modern schools. It presents more materials than could be used in any classroom situation. Best results will be obtained through intelligent use of the books by an able teacher who can select appropriate activities, plan their sequence, and indicate their natural relations to daily-life situations.

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A series of textbooks in health for elementary-school grades—Vigorous discussion has been carried on of late in health-education circles as to whether the attention of children should ever be focused on their health. The attitude of the authors of a recently published series of textbooks in health¹ is that children can be made health-conscious without being made health self-conscious, that they can be given a health consciousness which will enable them to make wise decisions in situations in which health is at stake without being made morbidly fearful that they may become ill. The specifically stated objectives of the authors are (1) to bring about a wholesome interest in health—an interest which will last beyond a child's school years, (2) to help establish good health habits, and (3) to furnish the latest scientific information about health and disease.

The series furnishes material for a continuous program in health instruction from Grade III through Grade VIII. Certain areas of the field of health knowledge are dealt with to some extent in every grade. Among these are food and nutrition, sleep, care of the teeth, care of the eyes, wholesome recreation, accident prevention, and prevention of communicable diseases. In each grade special emphasis is put on some one topic. In the book designed for Grade VI, for example, there is an extended treatment of bacteria and their relation to health. Like most recent health books, this series deals with mental health as well as physical health. Nothing is done with sex education in the series, but a separate pamphlet concerning it has been prepared by the authors and is available on request.

Each book of the series is organized into chapters, some of which may easily be combined into larger units of study. Each chapter contains several pages of text material. Each one also contains, in a section called "Things To Do," suggestions for supplementary work.

In practically every chapter of the first four books of the series, there is a section called "Questions Asked by Other Children." The questions are related to the text immediately preceding them, but they are not based directly upon it. They serve to introduce the additional text material to be found in the answers. Each question is answered in a paragraph. The answers to the questions do not follow the order of the questions. The reader therefore has the task of selecting the proper answer for each question.

Each book of the series contains a glossary. The last four books also contain height and weight tables.

In the first two books of the series much of the text material is given in the form of conversations between children and adults. In the remaining books the material is presented in straightforward expository form.

¹ W. W. Charters, Dean F. Smiley, and Ruth M. Strang, *Health and Growth Series: Good Habits*, pp. vi+186, \$0.60; *Living Healthfully*, pp. vi+186, \$0.60; *Wise Health Choices*, pp. vi+212, \$0.72; *Health Problems*, pp. vi+230, \$0.80; *Adventures in Health*, pp. vi+226, \$0.80; *Health Knowledge*, pp. vi+254, \$0.80. New York: Macmillan Co., 1935.

In the teachers' guides which accompany the series, teachers are given some specific help with teaching techniques, but most of the space is devoted to helping teachers orient themselves in the health program as a whole. The extended curriculum studies underlying the series are outlined in considerable detail. Selected references for both teachers and pupils are included.

The series has many commendable features. The books are attractive. They are well bound and well printed, and the illustrations, many of which are in color, are pleasing and serve their purposes satisfactorily. The text material is carefully graded; especial attention has been given to vocabulary. Although certain topics are handled in every grade, there is little monotonous repetition for the reason that the approach to a topic is made from a new angle each time and new phases of the topic are introduced or stressed. Throughout the series theories are stated as theories, not as facts. Although weight and height tables are included in the last four books of the series, care has been taken to avoid the rather common mistake of overemphasizing weight as an index of health. The point is clearly made that the weights of the tables are average, not optimum, weights. The authors are especially to be commended for taking into account the underprivileged child, not assuming that all children can follow easily all the health practices recommended. In accordance with their belief that systematic and incidental teaching should be combined in a health program, the authors have so written the series that the separate chapters are sufficiently independent of one another to make possible a flexible program. A topic may be studied whenever the propitious moment arrives.

Teachers who are constantly faced with the problem of individual differences in the matter of speed will doubtless wish that more of the "Things To Do" could be done in the classroom. As it is, most of them are suggestions for extra-class activities. The suggestions for experiments are meager and might well be increased in number. To an adult who expects an asterisk to refer to a footnote, the asterisks marking the new words are annoying. However, they will probably not annoy the young readers for whom the series is designed.

All in all, the books should contribute in considerable measure to the realization of the authors' stated objectives. The books deserve careful examination by all who are interested in health education.

BERTHA M. PARKER

An experimental study of a philosophy of science-teaching.—Many problems relating to content and method used in teaching science to children in elementary schools have resulted from differences in points of view held by leaders in the field. As a result of a careful consideration of a large number of these issues, the author of a recent study¹ concludes:

¹ George W. Haupt, *An Experimental Application of a Philosophy of Science Teaching in an Elementary School*. Teachers College Contributions to Education, No. 633. New York: Teachers College, Columbia University, 1935. Pp. vi+110. \$1.50.

These various points of view have become crystallized into two distinct philosophies of science instruction for children. On the one hand, there is the proposal that experiences should be provided which permit of interpretation and explanation contributory to an understanding of "large generalizations." . . . On the other hand, there is the assumption that young children are not capable of the kind of mental activity necessitated by the "large-generalization" type of aim and that therefore their experiences should consist mainly of observation [p. 12].

Haupt's study was made to secure experimental data relating to the assumption made by the "generalization" type of philosophy, that is, that the application of this philosophy necessitates particular kinds of mental processes, that young children are capable of these mental processes, and that a practical continuous gradation of content can be effected.

As a basis for this experimental study the author selected the learning objective: "Green plants convert the energy of light into the energy of food and fuel." Learning elements contributing to the development of this objective were derived through analysis of source materials and of papers on light written by a large number of children in elementary schools. By means of data from pre-instructional and post-instructional tests, composite conceptions relating to the objective were secured. These conceptions were grouped into units of varying degrees of complexity, each of which contributed to an understanding of the objective and was developed through experiences of children.

These data and the results of the experimental teaching present evidence that children at each grade level generalized in terms of their experiences, the generalizations at lower levels differing from those at higher levels by being less complex. The data also show how an objective makes possible elements of learning for presentation throughout a range of grade levels.

This timely study presents the first experimental data showing how the "generalization" type of philosophy may function in developing a continuous integrated science program in elementary schools. The results, however, are limited to the experimental study of one learning objective. Other studies should be made to extend and verify the results of this investigation. Working out problems through research will exert an important influence in bringing to a focus emphases held by leaders in the field and, at the same time, indicate lines of attack on problems of science in elementary schools.

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Educational News and Editorial Comment

THE NEW EDUCATION IN MEXICO

During the past few years the educational system of Mexico has been thoroughly reorganized in order that it might be made an effective instrument in socializing youth in terms of the principles and ideals of the new government. The following account of the present government's educational policies is quoted from an article by Isabelle J. Levi, appearing in a recent issue of the *Kadelpian Review*.

Mexican education today is spoken of as socialized education. This term has no connection with the socialized-recitation method of procedure. Socialized education in Mexico means the education of the revolution, education leading to a communist state.

The Amendment to Article III of the Mexican National Constitution states: "(1) Education shall be socialistic. (2) It shall have a non-religious character. (3) It shall be rationalistic, that is scientific basing its teachings and activities upon material reality and reason. (4) It shall combat fanaticism and prejudices."

General Cárdenas further explained these clauses, "It is necessary to help our laborers to know our national resources and to have the necessary technical preparation to utilize them, within co-operative social organization. It is imperative to stimulate the kind of teaching that will prepare pupils to produce and to love work as a social duty; to inculcate in them a social conscience so that

they will not forget that their spiritual patrimony is for the service of their class and so that they will remember constantly that their education is only an attitude for the struggle for the success of the organization."

Manuel R. Palacios (head of the Institution of Orientation of Education under the Ministry of Education) said, "The proletarian school, both agricultural and industrial, is designed to prepare the masses for the activities of combat. The teacher must be a social leader and his obligation is to serve the revolution, making the school the laboratory of the new social order."

The second aspect of the above reforms, namely, that education shall be non-religious in character, was the motive for a bitter social struggle. Señor Palacios justifies the closing of religious schools in that public education is to be imparted by the state which is to set the standards of the economic system. All private schools, religious and otherwise, are carefully supervised as to teachings contrary to the principles of the revolution. In the Congress of Morelia celebrated July, 1933, the "Revolutionary Youth" proclaimed that the private school's establishment involves liberty, but the abuse of that liberty means disloyalty to the national institutions. This last statement means that anyone may establish a school, but the teacher must pledge himself to teach revolutionary principles. Since these principles are contrary to the teachings of Catholicism, Catholic schools have been closed, although other private schools, notably, the American School, continue to function. The new socialist school is to collaborate with the labor union and the community. The Department of Education describes this system as follows: (1) It is obligatory in the first stages (six grades). (2) It is gratuitous. (3) It is progressive and rationalistic, since it impresses feeling of logical responsibility and teaches one to govern himself and others according to exact knowledge and judgment gained from observation, experience, and study. (4) It gives training in techniques of agriculture, industry, and commerce. (5) It keeps in touch with scientific investigation. (6) It is a unit from the kindergarten through the rural school to the technical school, to the university.

In line with these reforms, the revolutionary government has ordered the establishment of rural schools, the organization of cultural missions in the country districts, the creation of rural normal schools, whose aim is to impart technical agricultural knowledge to the children of farmers, the establishment of labor schools in the cities. . . .

Since the primary-school course is compulsory, its program is important.

1. It is a school of productive work. Manual training (cultivation of plants, care of animals, conservation of fruits and vegetables, dairying, bee culture in the country; carpentry, iron work, mechanics, electricity in the city) occupies an important place. Drawing, modeling, painting, to develop the aesthetic side, are emphasized. All academic work has a practical tendency toward the utilization of the resources of the region. Propaganda with a view to extinction of great estates and the extension of the communal lands is actively carried on. Knowledge of exact conception of natural phenomena in order to destroy prejudices

such as offerings for religious feasts is important material of the propagandist program. Also in connection with the land problem, knowledge of the importance of animal and mineral resources is emphasized.

2. The primary school is a functional school. Beginning with Dewey's idea that education is life itself, committees of pupils are made responsible for the participation of the school in social life. In this way committees are named to educate the child and the adult in dominating the forces of nature; committees of revolutionary and socialist action, for campaigns in justification of the revolution and to counteract the action of the conservative forces, health committees, committees for the improvement of home life, to inculcate respect for parents, committees for recreational activities, publicity committees, committees for interschool correspondence, to promote relations between schools of the country and schools abroad. A technical education council is formed by the principal of the school, the teachers and one representative of the parents and of the pupils' association who see that the institution moves forward.

3. The primary school [has] democratic control. The Department of Education says, "The teacher must exercise qualities of good judgment, tact, and firmness, showing a sympathetic interest in all the children, and enthusiasm over their accomplishments—conditions fundamental for right teaching." Individual differences, initiative of pupils, doctrine of interest are of importance.

In the program for the secondary school which aims to develop special aptitudes and skills, there is suggested the creation among students of vocational societies, organized around the goods of greatest importance in economic life. In the junior high school both English and French courses are provided. A student may elect one or the other; English classes are six times as numerous as French. In the junior high school much attention is given to science, especially botany and chemistry.

Many of the ideas stated above are the ideals of the revolutionary government. How do they appear in practice? In 1935 the budget for education was 16 per cent of the total budget for the federal government. The constitution provides for the abolition of the labor of children under fourteen, but the enforcement of this law appears negligible. In factories many children under the legal age are employed, and the rural districts are farther removed from supervision. The conservative group among students has shown its opposition to revolutionary teachings by the strike. In May, 1935, this form of demonstration was declared terminated by the government. The administration declares its greatest drawback to the success of the new school is the lack of education on the part of the teachers. From observation, it appears that the government (a minority radical group), wishing to educate the masses toward the new order, has undertaken a rather thankless job. The great majority of the Mexican people, agrarians, are not interested; the religious orders, whose schools have been closed, are voiceless at present. Some teachers in the government schools appear lukewarm supporters of the movement. . . .

Mexican officials of the new government have great hope in the future of Mexico, and their greatest hope is in education. As a director said, "The revolutionaries are smiling, for they know perfectly well that nothing nor nobody can hold back the forces of history."

INCREASED DEMAND AND HIGHER SALARIES FOR TEACHERS

In various quarters evidence is accumulating which indicates that there is a growing demand for teachers. In a recent issue the *New York Sun* comments on this fact as follows:

Placement officials of the University of Michigan report an increasing demand for teachers in their state and believe that this is indicative of conditions generally prevailing throughout the country.

Dr. T. Luther Purdom, director of the University's bureau of appointments and occupational information, reported today that placements in teaching positions, which reached a low point in 1933, have markedly increased since then. In 1930 the bureau received calls for but 408 teachers. In 1934 the number was 885. Last year it climbed to 1,355, an increase of 370, and the new year has begun with a brisk demand from normal schools, colleges, and universities.

A similar experience was reported today at Teachers College, Columbia University, which maintains a bureau of personnel service. According to Professor Clyde Miller, who is in charge of this bureau, placements have increased rapidly within the last two years, and students of the college have been sent to positions in all parts of the country.

Until about 1929, Dr. Miller reported, the bureau made about 1,500 placements a year. In 1930 and for a year afterward the number of placements dropped to approximately 600 a year. In 1934 and 1935 a definite upturn took place.

Thus, for the six months ending December 31 last, Dr. Miller's bureau placed 566 applicants, or at the rate of more than 1,100 a year. This in turn was an increase of more than 17 per cent over the placements made during the corresponding six months in 1934. Dr. Miller said that this year the number of placements is indicating a still further increase and added he had received reports of similar experiences from several other placement bureaus in teachers' colleges.

The experience of the Board of Vocational Guidance and Placement of the University of Chicago is not unlike that of Michigan and Teachers College. During 1932-33 the board received calls for only 568 teachers; during 1934-35 the number of calls was 1,336. It seems to be true, however, that the demand is primarily for experienced teachers; there is little, if any, increase in the demand for teachers without experience.

There is evidence, too, that teachers' salaries are being restored.

A recent issue of the *New Jersey Educational Review* reports that approximately a fourth of the communities of New Jersey have restored salary schedules in part or in full. Moreover, data gathered from 224 of the 547 school districts in the state indicate decided optimism. Twenty-two districts expect to see some salary restoration during the present school year, and sixty-four others are reasonably confident that provision for restoration will be included in the new budgets.

BASIC PRINCIPLES OF INSTRUCTIONAL LEADERSHIP

The Commission on Instructional Leadership of the Department of Supervisors and Directors of Instruction has undertaken, in a recent report, to define and amplify what it deems to be the fundamental principles of instructional leadership. These principles are divided into five major groups and are arranged under the following main classifications: the changing characteristics of American society, the nature and function of the school, the nature and function of instructional leadership, the activities through which leadership operates, and the organization and development of leadership. The principles are as follows:

(1) Instructional leadership should be based on an understanding of changing American life and on a firm loyalty to the welfare of all the people. (2) Instructional leadership should be based on an understanding of the present status of education, not merely in the immediate community, but in the country as a whole. (3) Instructional leadership calls for the consistent application of a philosophy of education which holds two functions as fundamental: the perpetuation, re-creation, and improvement of society; and the enrichment of individual human lives. (4) Competent leadership in instruction is based increasingly on the application of findings of educational research concerning the child, the learning process, and society. (5) The goal of instructional leadership is a school that meets individual needs, that values growth above mere achievement, that provides varied series of experiences through which genuine learning may occur, and that embodies the living spirit of co-operation. (6) Leadership is to be directed to the attainment of pupil growth through teacher growth. (7) Leadership should be directive or creative, intermittent or continuous, depending upon the total situation at any given time. (8) Instructional leadership should be concerned to a considerable degree with the preparation of teachers and with other general matters of educational policy. (9) Leadership at its best uses a minimum number of arbitrary commands and a maximum amount of skilled and tactful assistance. (10) Leadership is rendered effective by the co-operative formulation of principles intended to guide the instructional process. (11) Instructional

leadership should be adapted to the distinctive needs of each situation. (12) Instructional leadership should direct attention to educational values that at the time are generally neglected. (13) Leadership should be sensitive to the psychology of those who are led in order that barriers to progress may be avoided or removed. (14) Instructional leadership should continually evaluate its own effectiveness. (15) The organization for leadership in any school system should be consistent with the educational philosophy achieved by that school system. (16) Every child should be under the primary care of a competent teacher who is basically responsible for guiding his growth and development. (17) Effective leadership is directed toward improvement in the general conditions of learning; the prescription for the individual child is made by the teacher in the light of the best information and counsel available. (18) The development of skill in co-operative thought and action, both in pupils and in teachers, is an important goal of instructional leadership. (19) Leadership in instruction, although the central element in educational leadership, should be closely related to leadership in other educational functions. (20) Since instruction is the basic function of the school, the central organization of the school system should include a division of instruction or curriculum concerned primarily with the co-ordination and improvement of instruction on all levels. (21) In the interest of the integration of teacher personality, all supervisory influences, as far as possible, should reach the teacher through the person of a single instructional officer, normally the principal. (22) The relationships among supervisors, principals, and teachers should be based on democracy as the fundamental social philosophy and on scientific method as the means for the discovery of truth. (23) Professional organizations furnish an important avenue of democratic leadership. (24) Genuine leadership in instruction requires such broad and thorough training that graduate schools should give increased attention to the selection and preparation of instructional leaders.

In the report each of the foregoing principles is amplified at considerable length.

HERE AND THERE AMONG THE SCHOOLS

The Bronxville program to be continued.—Willard W. Beatty has resigned the position of superintendent of schools of Bronxville, New York, to become director of Indian education in the Department of the Interior. Seemingly, the citizens of Bronxville have no intention of making any fundamental modifications in the existing educational program. The following communication from Howard V. Funk, principal of the junior high school in Bronxville, is evidence of this fact. Mr. Funk says in part:

There are within the local school district at the present time approximately 2,900 to 3,000 qualified voters. At village elections in which there is a contro-

versial issue, between 1,500 and 2,000 ballots are cast. In routine matters where no controversial issues are to be settled, approximately 250 ballots are cast. Bronxville school elections have always been conducted on the party basis. Realizing that a nonpartisan poll on educational matters had never been taken in the village and realizing also that it was necessary to have the community register its opinion in regard to the present educational system if it was to be continued, a small group of parents banded themselves together to contact as many as possible of the qualified voters in the district who were at all familiar with the present educational program.

In order that a "yes" or "no" answer as to policies might be possible, a statement issued by a former board of education was printed. With this was sent a statement prepared by the group themselves, which they asked voters to sign. This small group not only decided to carry on this poll, but they also contributed a sum of money which was used in advertising in the local papers so that all the people in the district might be made aware of the poll that was being carried on. This small group expanded into a larger group which was organized to cover the district so that every voter could be reached without too great an expenditure of effort and time on the part of single individuals.

The results of this poll were handed to the present Board of Education at a recent meeting. Twelve hundred and eight signed statements were turned in, seven of which were from people outside the district who had children in the schools. Of the total number, forty were opposed to the school for various reasons; the remainder favored the retention and further development of the program.

The adoption of a new supervisory form in Omaha.—For the past two years a committee of principals in Omaha has been working on a form to be tried out experimentally in lieu of the "old-fashioned rating sheet." Something of the philosophy underlying the new form may be gained from its title, "A Guide for the Improvement of Teaching and Learning." Its major purposes are described as follows: "(1) to help teachers analyze their own needs for growth and improvement, (2) to guide principals and supervisors in sympathetic understanding and in the improvement of their own techniques of scientific guidance, and (3) to help to provide equal educational opportunities for all the children in Omaha." The guide is organized under five divisions: "Personal Qualities," "Social and Cultural Qualities," "Professional Qualities," "Instructional Technique," and "Pupil Growth." Under each of these divisions numerous subtopics are included with space for checking "yes" or "no" and with space for additional comment.

The use of newspapers in Springfield, Illinois.—Extensive use is being made of newspapers in the upper grades of the schools of Springfield, Illinois. F. W. Hendricks, principal of the Lawrence School, seems to have initiated the practice. Forty-five copies of the morning paper are furnished his school free of charge. These papers are used in the social-studies classes and in the reading classes of Grades VI, VII, and VIII. In the former classes attention is given to matters of economic and social interest; in the latter classes pupils are taught how to read a newspaper. At the close of the day the papers are taken home by pupils who may desire them. This practice has spread from a single school to almost the whole system.

A method of securing community approval of new-type report cards.—Much has been written about the most desirable types of report cards, but little attention seems to have been given to the important problem of securing community approval of new report forms. Carl H. Kumpf, principal of Amherst School District No. 13, Eggertsville, New York, has supplied us with a description of the methods he employed in winning the intelligent support of parents for a new reporting system. Mr. Kumpf and his staff worked for a year devising what seemed to them a desirable report card for the community. Thereupon the following procedure, described by Mr. Kumpf, was adopted to secure community understanding and approval of the new system.

But how to make the community feel the need as we did for a change in the reporting system? Without this feeling much of our effort would have gone for naught. Because of the character of the new form it was imperative that the parents in the community appreciate and therefore accept the attempt of the school to promote a better understanding among parent, pupil, and school.

To this end we contacted the president of our parent-teachers' association, who was quickly appreciative of the value of disseminating the results of our findings among our patrons. Consequently, the last P.T.A. meeting of that year was given over to the school principal for the purpose of a panel discussion on report cards. The principal turned over to the P.T.A. president a list of parents who were representative of all sides of the community in point of residence, economic status, occupation, and social position. Some sixteen parents accepted the challenge of participating in the discussion.

Among the panel members were a bond salesman and his wife, a contractor, a milk distributor, the wife of a retail merchant, a college professor and his wife, a mechanic and his wife, a furniture salesman and his wife, an elementary-school

principal of a nearby city, a member of the Board of Education, a teacher of our staff, and the principal as chairman. This enumeration is inserted merely to demonstrate that no attempt at selectivity was made in drawing up the panel.

A list of five problems was sent to each member of the panel, together with a description of the conduct of a panel discussion and instructions for the member's function in the discussion. This communication was soon followed by a bulletin of references pertinent to the newer trends in home reports. A library containing many of the references listed in the bulletin was set up in the school specifically for the use of the panel members. Incidentally, good use was made of this library.

On the night of the panel discussion copies of the problems to be discussed were distributed to the audience. They also received a copy of a dummy report card which was to serve as a concrete basis for criticism. Informing the audience in this way avoided the undesirable feature of having comments remain too much in a general vein.

The panel discussed the problems listed in the bulletin for some forty-five minutes. This discussion included criticism, both positive and negative, of the dummy report card previously supplied. The discussion was then thrown open for the participation of all persons present that evening. Many important questions were raised, and intelligent responses were made by the lay members of the panel. It was gratifying to note that those parents who had enjoyed the readings we had provided expressed themselves largely in favor of the projected change. . . .

On the basis of the panel discussion and subsequent consideration, the report cards were again revised and then printed. Only enough cards were printed to last about two years so that further changes can be made before another printing, if the community is ready. Whether or not the community will be ready depends on the efforts of the school to educate our patrons to desire the better things.

A STATE PROGRAM FOR THE PROMOTION OF VISUAL EDUCATION

In 1933 the Wisconsin Teachers Association appointed a committee to make a thorough study of the whole field of visual education with the view of making the results of their findings available to the teachers and the administrators of the state. The recently published report of the committee, which bears the title *Visual Education*, should be of practical value to teachers in Wisconsin and throughout the country as well. Chapters are devoted to each of the following topics: "The Place of Visual Aids in Education," "Kinds of Visual Aids: Sphere of Effectiveness of Each," "Motion Pictures in Education," "Projection Equipment for Visual Educa-

tion: Its Cost, Care, and Availability," "Classroom Technique in the Use of Visual Aids." The final chapter contains a discussion of "A Co-ordinated State Program for Promoting the Proper Use of Visual Aids and for Establishing an Effective Visual Aid Service." The following paragraphs describe the essential features of the plan.

Responsibility of the state for an integrated program of visual education.—A state-wide program of visual education can be effective only if it is closely integrated with courses of study. Since the State Department of Public Instruction prepares courses of study for Wisconsin schools and since the use of visual aids is becoming more general, it seems that the State Department should take cognizance of the fact and assist in giving guidance to the schools in the selection and timing of visual aids in instruction so that the program will be successfully geared to the course of study. The potentialities inherent in the wise use of the many fine visual aids available to schools today have aroused the interest of many teachers. Their enthusiasm is mounting from day to day, so that it is time that those concerned with the guidance of education in the state give very practical help in developing an integrated program of visual education.

There should be a central library for the distribution of visual aids, since very few school systems are large enough to support their own libraries economically. Films are expensive, they require expert care, and they deteriorate quite rapidly. The central library should be under the administration of the state, either through the State Department of Public Instruction or through the University. There are a number of advantages to be derived from having the central library in the University of Wisconsin. That institution already has one of the most complete collections of visual aids in the nation; it has an organization which possesses valuable experience in the maintenance of a library and in the distribution of aids. It is necessary, however, that the State Department and the Bureau of Visual Instruction maintain an alert awareness of one another to the end that they co-operate for the best interest of the service to the schools of the state. It may well be recommended that some one be employed to correlate the work of the State Department and the Bureau of Visual Instruction. The library must be so administered that the best interests of the children are served and so that all children will receive comparable benefits. In other words, let us have a setup for the use and distribution of visual aids so that we more nearly approach equality of educational opportunity. A properly administered state library will assist in keeping films with unsatisfactory propaganda out of our schools. While some free films are without fault, all such films are for advertising purposes.

When the demand for visual aids grows to a point where several copies of films and other materials are needed, it is possible to secure economy of distribution and improvement of service by setting up several distributing centers. In Wisconsin the demand for visual aids has probably reached that point where

several distributing centers would prove economical. For instance, if the demand for films in a field such as the physical sciences has grown to a point where several films are needed for the service of several schools at the same time, the cost of shipment and the time spent in transit could be greatly reduced by having several well-placed branch libraries. Until the demand has grown sufficiently, the establishment of several distributing centers would, of course, not be economical. The University Extension Division, under which the Bureau of Visual Instruction is organized, has field men situated in a number of cities in the state where distributing centers might well be set up in connection with the offices of those men. Such offices might find it possible to combine several services of the University to the state, thus increasing the effectiveness of the Extension Division.

Financing the visual aids libraries.—Neither the state nor the individual schools should carry the entire cost of a visual-education service, but the state should assume a part of the obligation, while the schools using the materials should assume partial cost. Such a policy would make the schools more responsible in the care and the use of the materials. The state should assume a part of the burden so that this educational service may be more equally available to all school districts.

Correlation of materials of state library with state courses of study.—Correlation of materials in the state library with state courses of study must be effected through close co-operation between the administration of the library and supervisors of instruction in the Department of Public Instruction. Teachers are greatly in need of guides to assist them in correlating the uses of visual-aid materials with courses of study. We have assurance that the present Bureau of Visual Instruction stands ready to lend all the assistance at their command to the Department of Public Instruction in working out an integrated program. It is hoped that there will be, in the near future, a course of study prepared for teachers, containing provisions for the effective use of visual aids.

Teacher training.—There never can be a generally effective visual-education program in the schools of this state until teachers are given instruction in the psychology, the objectives, the mechanics, and the techniques of visual education. This dare not be left to chance and to the individual interest of teachers and administrators. It can be brought about only through systematic instruction. This means that provision must be made in the teacher-training institutions for courses in visual education and these courses required for graduation. Perhaps a better descriptive name may be found for such courses than "visual education"; but, whatever the designation, the courses are necessary. Visual aids are today as much a matter of necessity in effective instruction as adequate testing, the psychology of instruction, and related courses. Ideally, perhaps, the visual aids should be integrated with courses dealing with content, so that a teacher majoring in history, let us say, would be given an opportunity to master the use of visual aids in that subject. Unfortunately, we know from experience

that, at the present time, the teachers of these courses are themselves not prepared to offer this instruction. It can be given only through specially organized courses and staffed by adequately prepared instructors.

Besides these courses for prospective teachers, we commend the Bureau of Visual Instruction of the University Extension Division for the assistance it has given teachers in service in getting out bulletins dealing with phases of visual education. It is suggested that the State Department consider the matter of sponsoring administrative conferences in Madison, and scheduling the subject of visual education in the regional conferences held throughout the state by the state supervisors.

The Wisconsin Education Association is commended for sponsoring the annual section meeting dealing with visual education. This furnishes a good opportunity for the exchange of ideas by those already interested in visual education. It is believed, however, that, to reach the rank and file members of the profession, the W.E.A. might stress the contributions of visual aids in the various departmental sections of the association. It is suggested therefore that the section chairmen, in an early year, consider this as a suitable theme around which to build departmental programs.

A GUIDE TO THE USE OF VISUAL AIDS IN THE SCHOOL

Visual Aids in the Schools is the title of a bulletin recently published by the New York State Association of Elementary Principals. The first part of the bulletin deals with visual aids which may be had "for the asking and making." In this part a chapter is devoted to each of the following topics: "The School Journey"; "Charts, Graphs, and Diagrams"; "Pictures and Picture Collections"; and "The Object-Specimen-Model." The second part deals with visual aids requiring equipment, such as the blackboard, lantern slides and stereographs, maps and globes, and motion pictures. The bulletin contains more practical suggestions for obtaining and using visual aids than any other treatment of the subject that we have seen. For example, the chapter on the school journey or field trip contains suggestions for planning, organizing, and carrying a school journey into effect, a list of possible field trips, a number of lesson plans, and descriptive statements illustrating their use. The chapter on charts, graphs, and diagrams contains numerous concrete illustrations of how these devices may be used in teaching the various school subjects. The other chapters contain equally concrete and practical suggestions. Although this bulletin was prepared primarily for principals and teachers in New York State, it should prove exceedingly

helpful to teachers elsewhere. The distribution of the bulletin is in charge of Rollin W. Thompson, Roscoe Conkling School, Utica, New York.

A STUDY OF PUPIL FAILURE IN NEW JERSEY

The New Jersey Elementary Principals' Association has recently published a bulletin under the title *Reducing Pupil Failure*. The bulletin presents the results of a comprehensive study of pupil failure in New Jersey. The first part contains an excellent summary of the literature relating to pupil failure. In Part II an analysis is made of the extent of failure in New Jersey and the underlying causes. Part III consists in a discussion by twenty-four educators of what is being done and what ought to be done in the matter of pupil failure.

PERCENTAGE OF OVER-AGE PUPILS

Grade	1927	1934	Difference
Kindergarten.....	0.3	0.2	- 0.1
I.....	18	14	- 4
II.....	28	21	- 7
III.....	36	23	- 13
IV.....	43	32	- 11
V.....	44	40	- 4
VI.....	48	44	- 4
VII.....	41	44	+ 3
VIII.....	34	37	+ 3

Data on extent of failure were derived from age-grade studies of approximately fifty thousand elementary-school pupils in the kindergartens and the first eight grades of a number of representative types of communities in the state. Data were gathered for the same communities as of September 1, 1927, and September 1, 1934. A comparison of the two sets of data reveals that there has been a significant change in philosophy and in practice with respect to promotion. The accompanying table indicates something of the nature and extent of this change.

The data with respect to the extent of pupil failure is analyzed as follows:

1. It is evident that almost no over-ageness exists in the kindergarten. Among other things this indicates that pupils in the kindergarten are not retained there

when they should be having the first-grade experience, except for an exceedingly small percentage of them.

2. In both 1927 and 1934 the amount of over-ageness increased steadily with the peak being reached in Grade VI.

3. Working papers, employment, and probably in some cases withdrawal from school cause the reduction in over-ageness in Grades VII and VIII. It is interesting to note that only in Grades VII and VIII do we find that in 1934 over-ageness is greater than in 1927. Though this difference is slight, one would expect that the opposite would be true until we bear in mind two factors which produced these facts for Grade VIII. These two factors are: (a) increase in age and grade requirements for working papers, (b) lack of employment for youth during the depression. These two factors have resulted in greater persistency of attendance of many pupils who in more prosperous times would withdraw earlier to go into employment. As many of these pupils are slow-learning pupils, they would cause an increase in over-ageness in Grades VII and VIII as they are usually among the pupils with most numerous non-promotions.

4. Perhaps the most interesting thing disclosed by the table is found in the fact that from the kindergarten to Grade VII there has been a considerable decrease in the amount of over-ageness. This decrease is especially marked in Grades I-VI. This indicates many things. Two conclusions which can undoubtedly be drawn safely are: (a) that there is a changing philosophy towards non-promotion which is effecting a very noticeable reduction in the number of non-promotions; (b) along with this, these facts, no doubt, reflect the results coming from better pre-service and in-service training of teachers. Because of reasons mentioned at the beginning of this section, it is evident that non-promotion as an adjustment device is losing ground.

5. It should be pointed out that, in spite of considerable over-ageness still present in many grades, if time and the size of this report would permit, it could be easily demonstrated that a large proportion of over-ageness remaining is of pupils only one year over-age for the grade, who in many cases have experienced non-promotion only once.

Each member of the association and all city and county superintendents were asked to give opinions as to why pupils fail. A summary of all the reports received lists the causes of failure in the following rank order: low mentality, philosophy of the school, social background, lack of attention to individual differences, age at the time of beginning Grade I, poor foundation, and pupil transfers.

Principals outside New Jersey will no doubt be most interested in that part of the bulletin which is devoted to a discussion of practice and opinion regarding reduction of failure. The committee which prepared the bulletin has arranged these discussions in the following

order: what is being done in school systems; general plans for reducing failures; specific techniques for reducing failure in individual schools; specific attempts to reduce failure and suggested remedies; failure without reference to a particular school or school system.

With respect to the merits of non-promotion there is the widest divergence of opinion among the principals of New Jersey. At one extreme it is contended that failure should be abolished and that an entirely new system of grade organization is needed to accomplish this end; at the other extreme it is insisted that failure is educationally worth while and should be retained. We quote some of these expressions of opinion.

George I. Brinkerhoff, a Newark principal, says:

There would be no failure among pupils if we did not set up a type of organization that makes failure (grade repetition) inevitable. . . .

It is not at all necessary that we keep a form of organization that prescribes failure for the underprivileged. We can easily change the plan. . . .

The remedy for our present failure situation lies not in efficient management of the present system of organization but in the establishment of a new system.

The following paragraphs are quoted from a statement by Eugene S. Farley, director of the Department of Reference and Research at Newark.

These serious consequences of retardation have not been recognized until recently and in the past retardation has frequently been looked upon as a means of improving the work of the weaker pupils. Careful studies indicate, however, that retardation tends to impede, rather than to accelerate, individual progress. During the past two years several Newark schools have paired selected pupils on the basis of mental age and intelligence quotient; one of each pair has been retarded and the other promoted. The achievement of these pupils was tested at the beginning and the end of the term. The results showed that the gains made during the term by the retarded and promoted pupils were about the same. In some instances the retarded gained slightly more than the promoted pupils, but in other instances the gains favored the promoted pupils. These experiments indicate that retardation of one term has but little effect upon the scholastic progress of the pupils.

The cumulative effects of retardation are revealed by the situation in the fifth and sixth grades. Retardation in Newark reaches its peak in Grade VII, but in 1934 nearly half of the pupils in Grades V and VI had been retarded one term or more during their years in school. This situation, therefore, is ideal for a study of retardation. To determine the cumulative effects of retardation, partial correlations between chronological age and achievement, with the mental

age constant, were worked out. Three correlations, made during 1934 and involving over two thousand pupils, were negative, indicating that retardation had slowed down the rate of accomplishment. A fourth computation, made in 1935, showed no relationship between grade progress and academic achievement. These facts indicate that failure and retardation are likely to impede academic work.

Rufus B. Allen, a principal in Perth Amboy, makes a vigorous defense of non-promotion.

Honestly, is this elimination of failures in school of so great importance? Suppose a child does fail. Are we to believe as a group that his personality is forever warped?

Children should really be taught to accept failure with joy in the heart and thanksgiving on the lips. Those who have never felt keenly the black depths of defeat will never know well the thrill of victory. If some of these old-fashioned taboos with this disagreeable stigma attached to them could be educated out of the present generation, the coming generation might learn to face a situation squarely. Failure is like a black eye to a boy. It looks bad for a week, but it only hurts a few hours.

There are those who say we learn nothing by failure. Just subject that thought to a searching scrutiny and see if the same answer emerges from your own experience. Whether all these social-planning and social-security schemes are successful or whether they fail, life is still a contest for our boys and girls. If they do not have to battle for a livelihood, they will be compelled to sustain their institutions. Thank God for a good failure. If there were no failure, there would be no success.

WHO'S WHO IN THIS ISSUE

CHARLES H. JUDD, head of the Department of Education of the University of Chicago. HARRY G. ABRAHAM, principal of the Woodstock Community High School, Woodstock, Illinois. WILLIAM S. GRAY, professor of education at the University of Chicago. AGNES G. GUNDERSON, assistant professor of education at the University of Wyoming. FLORENCE L. GOODENOUGH, research professor at the Institute of Child Welfare, University of Minnesota.

FEDERAL SUPPORT OF PUBLIC EDUCATION¹

CHARLES H. JUDD
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A study of the history of federal participation in education in the United States cannot fail to convince anyone who approaches the subject with an impartial attitude that there are major difficulties, even major hazards, in the attempt to bring into successful co-operation the states and the central government. The states seem to be left by the Constitution of the United States with full responsibility for education. The central government seems to be limited to those types of participation which can be entered into only through grants of land or money. Any grant which the federal government makes to public education must be administered by the state or by some agency controlled by the state. The possibilities of inco-ordination are numerous. The federal grant may itself be unwise. State administration may be faulty. Above all, friction may arise because of the incompatibility of federal purposes and influences with the purposes of a given state system of education.

It is important that we consider some of the historical examples of federal participation in education. The first federal support of schools was through the well-known grants of land for the maintenance of common schools made to the states carved out of the Northwest Territory. The members of Congress were acutely aware of the problems which confronted the pioneers who were moving into the western wilderness. The desire to help the pioneers to keep alive the traditions of civilization expressed itself in the pronouncement made in 1787 which has been quoted again and again by those who seek the support of high authority and lofty sentiment in emphasizing the importance of schools: "Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged."

¹ Address delivered on February 24, 1936, at a general session of the Department of Superintendence of the National Education Association.

As a substantial contribution to the ideal thus expressed, Congress reserved the sixteenth section in every township in the Northwest Territory as school land. No sooner were the sixteenth sections made available for the maintenance of public schools, however, than forces directly opposed to religion, morality, and knowledge came into full operation. The land dedicated by federal enactment to schools was wasted, squandered, and in many cases corruptly dissipated. In a few instances school lands were saved, sometimes by lucky accident. Where they were saved, they yield income which is highly beneficial. For the most part, however, the story of the administration of the land grants for the maintenance of schools is one of the darkest records of incompetency in the history of the United States.

As a second example of federal support of education, we may consider the grants of land made in 1862 for the purpose of encouraging the development of the science of agriculture and the mechanic arts. These grants were made in wartime when the food supply of the nation was in jeopardy and when the profession of engineering was in its infancy. A need more urgent than that of 1862 can hardly be conceived. A great national crisis was at hand, and the states could not meet this crisis. Assistance from the central government was absolutely essential.

With the income from the lands given for the development of agriculture and the mechanic arts, the states established the institutions now known as the land-grant colleges. There can be no doubt that the United States has received from the land-grant colleges important contributions of knowledge and a body of trained men and women who have greatly benefited the nation. While much has been gained, it is equally true that there has been in many of the states a disturbance of the equilibrium of higher education which has been disastrous. One has only to think of Oregon, where the land-grant college has been the rival and enemy of the state university. The land-grant college of that state flourished because it was supported in part by the federal government, which has added to the original grant of land made in 1862 subsequent grants of money. The state of Oregon has been thrown into political turmoil in its effort to assimilate two institutions when it has barely enough resources for

one good institution. The experience of Oregon is paralleled by that of other states. For example, Washington, North Carolina, and Iowa have been disrupted by conflicts of interests and even by quarrels between the land-grant college and the state university. In not a few cases states have had to appeal for aid to surveyors imported from outside the state to adjust the programs of the rival institutions so as to avoid indefensible duplications.

It is not especially important for the cursory view which is possible on this occasion to attempt to decide whether the difficulties arising out of the presence in a state of a separate, federally aided land-grant college are due to the form of the federal grants or to the shortsightedness or folly of state officials. The fact is that, whatever the cause, a lack of internal equilibrium or co-ordination has appeared where state support and federal support have had to be adjusted to each other.

Again, let us consider what the federal government has done for the education of its wards—the Indians, the natives of Alaska, and the inhabitants of the island possessions. One does not need to express personal judgments on these undertakings, which have often been most infelicitous. All that is necessary is to read the official impeachments made by each new administration of the work of its predecessor. If official condemnation is not enough, let one visit such schools as the federal government now conducts on Indian reservations and evidence in abundance will be found of the evils of remote control of education by federal officials who are totally ignorant of the most elementary principles of school organization and administration.

The examples drawn from history before 1917 might possibly be overlooked as illustrations of natural incompetency on the part of a struggling nation. No such extenuation can be offered to cover the record of the most recent federal interference with state organization of education, which is fresh in the minds of all of us. The organized manufacturers of the country, aided by a small group of radicals among the educators, made an attempt, with the assistance of federal appropriations, to divide the American educational system into two rival camps, one devoted to general education, the other to federally supported, federally directed, and federally controlled

vocational education. Fortunately, the present federal administration has been wise enough and strong enough to require vocational education to recognize itself as a part of an undivided educational system. No one can be so shortsighted as to believe, however, that the victory for internal harmony and co-ordination has been completely won. Vocational education as it was injected into the educational system of this country was partisan and foreign to the genius of the American people. It has not yet completely adjusted itself to the social ideals which characterize this nation.

I pause to make the comment that the difficulties which arose from the spirit and purpose that prompted the creation of the Federal Board for Vocational Education are not referred to here with any desire to disparage vocational education. It is my belief that vocational education must in the future be greatly expanded. The point which concerns us at the moment is that the co-ordination of community needs and federally formulated plans is extraordinarily difficult of achievement. There can be no doubt that vocational education itself has been retarded by the antagonisms which have been developed through the recent federal interference with state and local school systems. Educational leaders will have to show genuine statesmanship in order to repair the social damage which has already been done.

The critical attitude which a study of the history of education compels one to take toward federal participation in education gives place to an attitude of gratification, but only partial gratification, at one point. Since 1868 the federal government has maintained the Office of Education in the Department of the Interior. American educators recognize that this federal agency has collected and made available a vast body of useful information. No other nation has so significant or so readily accessible a detailed record of the facts about its schools as has the United States. One's gratification soon reaches its bounds, however, when one considers the stepmotherly way in which Congress has treated the Office of Education. Appropriations so small that it has often been impossible to publish the facts assembled have seriously handicapped the Office. When any pretext of economy has been available as an excuse, the framers of the budget and the appropriating committees of Congress have

made the Office of Education the first victim of drastic reductions in appropriations. Collection, interpretation, and publication of information—the most efficient forms of participation in the improvement of education with which the federal government has ever been induced to experiment—have, as a result, been so inadequately supported that one must conclude that the people of the United States or at least their representatives in Congress do not understand or appreciate the value of what the United States Office of Education does.

The difficulties which result when federal interests and state interests clash or when Congress exhibits a lack of understanding and appreciation of the fundamental information on which all intelligent educational administration depends are greatly accentuated by the practice which has prevailed since 1911 of requiring the states to match federal funds appropriated for particular forms of education. Appropriations made on the so-called "fifty-fifty principle" unbalance the whole system of state support because for every federal dollar given for a particular purpose the state must provide a dollar out of its own revenues even if existing educational enterprises have to be starved in order to match federal money.

Because of historical evidence of the kind which has been briefly reviewed, the National Advisory Committee on Education, appointed in 1929 and commissioned by President Hoover to chart a course for the federal government to follow in dealing with education, recommended complete abandonment of the type of appropriations for the support of schools and colleges that had been made in the past. The Committee further recommended that in the future federal grants to education be turned over to the states to be administered by them without the exercise of control by the central government. Finally, the Committee, unable to arrive at any decision with regard to the method of distribution of federal funds and unable to determine the amount of federal support which was necessary or desirable in order that educational opportunities might be equally available for all the children of the nation, recommended a thorough study by a well-equipped commission of the whole problem of federal financial support of schools.

There can be no doubt that the report of the National Advisory

Committee on Education represented the general opinion of educators at the time that it was rendered. It is worthy of note, however, that one line of consideration which was an essential part of the thinking of some of the members of the Committee but was not a part of the report related to the competency of the states to administer federal funds given for education if in due time such funds were forthcoming.

There is no possibility of blinking the fact that in the year 1936 many states are no more able to manage their educational systems properly than were in earlier times those states which in the years immediately following 1785 were intrusted with every sixteenth section for the maintenance of schools. Evidence of the truth of this statement is easy to produce. The National Advisory Committee on Education was importuned by its negro members to take special cognizance of the inequitable distribution of educational funds in many southern states. It was contended that the support of education in these states is so prejudicial to the negroes that special federal grants for negro education seem to be the only possible means of correcting the situation. It was pointed out that, while the constitutions of a number of the states explicitly provide that there shall be no discrimination in the administration of educational funds on account of race or color, actually a wholly disproportionate share of state educational funds and of local school funds uniformly goes to white schools.

I voted at the meeting of the National Advisory Committee on Education against the plea of the negroes for special federal grants for the education of their people because I felt sure that the way out of the difficulty was not to patch up defective state organization by intervention on the part of the federal government in behalf of citizens of a particular race or color. I believed, and I think many members of the Committee agreed with the view, that the real corrective for unjust policies in the states must be either a marked improvement in state administration of education or insistence on the part of the federal government that the states live up to certain general requirements.

So clear was the recognition of the impossibility of securing proper administration of any funds, especially funds drawn from the federal

treasury, unless there is a reform of state administration of education that some of us tried to devise ways and means of bringing to public attention the necessity for reform of state departments of education and of state systems of support of education. We persuaded the American Council on Education to sponsor an elaborate study of the state departments of education. The study was made by a competent committee on which were representatives of political science as well as representatives of education. It revealed a lack of uniformity in methods of organization and administration and an unevenness in the character of the personnel in charge of education in the different states such as to give pause to the most enthusiastic advocate of unrestricted federal subventions for education.

The breakdown of education in many of the states during the past few years of financial distress, even in some of the states where there has been a large accumulation of wealth, supplies unwelcome evidence of the validity of the doubts which existed earlier about the competency of the states to administer unrestricted federal funds for education.

Among the reasons why states are incompetent is the fact that state taxing systems are obsolete. Not only are state systems of taxation unable to provide adequate revenues for governmental services, but there is also serious inco-ordination between state and local taxes on the one hand and federal taxes on the other. It is, I take it, universally recognized that the federal government has laid its hand on the most productive and the most equitable tax, the tax on incomes. The antiquated taxing systems of the states, conceived and written into statutes and even into constitutions in the days when communities maintained themselves chiefly by agriculture and animal husbandry, are no longer adequate. With the breakdown of local and state taxing systems, there is a strong temptation to seek relief by demanding federal aid. While we listen to appeals by state educational systems for unrestricted federal grants, let us not blindly forget that state after state can be indicted for wholly neglecting the more rational procedure of cleaning house within its own borders.

It is time that educators frankly face the fact that in many cases the weakest department of state administration is the department of education. During that part of the nineteenth century when many

new states were being admitted into the Union and state departments of education were in process of creation in the constitutions of these states, there was complete confidence on the part of the people in the franchise. There was a corresponding suspicion of executive authority. The state superintendency was therefore limited in a large number of the state constitutions in such ways as to render it feeble to the point of incompetency. Furthermore, the superintendency was made subject to popular vote, with the result that it was rendered open to attack, if not control, by the most malignant political forces.

In taxing systems and in educational administration, therefore, the majority of the states come to the federal government with unclean hands. If the states were provided with large federal grants, would state officials do better than did our ancestors not far removed when they wasted the sixteenth sections like reckless spendthrifts?

It is not alone the states which have elective state superintendents and taxing systems reeking with decrepitude that have inadequate methods of financing their schools. Let us consider the proud Empire State, which boasts of everything, especially its system of distributing state money to local communities for the maintenance of schools. New York State has, perhaps more than any other state, methods of equalizing assessments on property in different parts of the state. It has the largest state fund for education that has ever been provided by any state. It has a powerful and highly centralized state department of education. It commands the most expert advice that is available in administering its revenues. It guarantees to each community fifteen hundred dollars a year for the maintenance of each elementary-school unit, requiring only that the community tax itself at a moderate rate. This state, while exhibiting the progressive tendencies enumerated, is one of the most backward states in the consolidation of school districts. The people of New York and the Board of Regents are so little satisfied with the operations of the law providing for the distribution of state funds appropriated for the equalization of educational opportunities within the state that they have instituted a sweeping inquiry into the efficiency of the whole state school system.

If New York, with its facilities for equalizing assessments and

supervising expenditures, finds its school finances tangled and difficult to adjust because of the diversity of local conditions, what is to be expected if the United States, with the most extreme variations in community characteristics and with no devices for equalizing assessments, attempts to satisfy the demand, which is certainly plausible, that every child in the country be given opportunity to gain a sound education?

I yield to no one in the desire for a better distribution of educational opportunities, but I am fully convinced that the time has come when we who are responsible for the schools must be realistic in considering what measures are necessary to guarantee that the character and quality of education shall be such as to meet the needs of the nation. I, for one, am quite as much interested in studying methods of improving education as I am in shifting the burden of support from the states to the central government. There is absolutely no guaranty, as history proves, that federal appropriations will produce good schools, good educational opportunities for Mexicans, negroes, and children in the states which are drained of wealth in behalf of the great industrial and banking centers, where capital has been concentrated. The quality of education must be safeguarded. Unless all forms of support can be so arranged that they will surely contribute to the betterment of schools, there can be no enthusiasm for new contributions from any source, least of all contributions from the federal government, lest there be a repetition of what happened to the sixteenth sections of land allotted to townships for the maintenance of schools.

I make a plea for unprejudiced consideration of the whole educational situation, not a scramble for money from the federal treasury. I am convinced that in the past, when the federal government has been asked to participate in education, there has been far more thought devoted to finance than there has been to the intellectual and emotional improvement of the American people.

Among the items that the American people will have to think of if they are really interested in education is the length of the school year. They will have to answer the question: How many months in the year should children attend school in order to become competent citizens of the United States? I am quite certain that I make a state-

ment which cannot be refuted when I say that four months a year or five months a year is too short a period of schooling to be tolerated in a civilized country. I am prepared to defend with vigor the contention that, whatever else the federal government does, it ought to make sure that every child in the United States has at the very least six months of schooling each year. Any scheme or plan or proposal which does not absolutely guarantee a decent minimum of schooling for every child seems to me to be blind, inadequate, and unworthy of acceptance. To be quite concrete, if Arkansas is so poor that some of the children of that state cannot be provided with more than four or five months of schooling each year while the children of some other state receive nine or ten months, I, for one, advocate such a readjustment of support for public schools in the United States that education shall be furnished to the children of Arkansas at the expense of the better-conditioned states.

If, instead of thinking of the states which are too poor to conduct good schools for reasonable lengths of time, we turn our thoughts to the states which have wealth, again it seems to me that we should be interested in education of high quality and in proper opportunities for children. In the richer states, as in the poorer, the federal income tax is superimposed on state taxes which are almost as diverse as are the taxes of Ethiopia and Italy. I make no effort to decide whether Illinois or Indiana has the poorer taxing system. I merely point out that the taxing systems of these states are different. If now Illinois and Indiana were each to draw from the federal treasury, which used to be replenished each year by the revenues from an approximately equitable income tax, a certain sum of money per child, per teacher, or per community for schools and were to add this federal money to the state money collected under the present "horse-and-buggy" or "oxcart" state constitution, would there be justice in the land? I read in the writings of some of our colleagues in education vague references to ideal taxing systems. I find the statement that education, if it will adopt such and such a mathematical formula for the distribution of federal grants, will lead the way to the collection of all taxes by the federal government and to the allotment of funds to the states for all public services by the same formula. In the meantime, while this sweeping reform in taxing systems is being contemplated, I find even the statistical en-

thusiasts puzzled quite as much as I am to know what is to be done about Utah and California, which contribute from the state treasury a large percentage of the cost of schools, and Colorado and Kansas, which for some reason are only moderately generous or even parsimonious in appropriating state funds to their schools.

I am well aware that school men and women recoil from the idea that the authorities of the federal government be allowed to exercise any degree of discrimination in the distribution of federal funds for schools. I wish to leave no doubt in the mind of anyone that I am here and now explicitly advocating a distribution of federal appropriations for general education, if and when such appropriations are made, in such a way that federal support will go first to those parts of the country where money is most needed to maintain schools. I believe in intelligent discrimination rather than blind mathematical distribution of the spoils.

Having thus recorded the essentials of my creed, I shall use the remainder of the time at my disposal advocating a plan for federal participation in the support of schools.

The distribution of wealth in this country is such, because of industrial and economic conditions, that the banking centers may properly be called upon to pay for governmental activities in amounts that will make possible adequate public services in all parts of the country, in the non-banking centers as well as in the centers rich in capital. The purely geographical subdivisions of the United States no longer correspond with either the needs or the activities of the population. The boundaries of states have been broken down by the evolution of systems of transportation and by the interchanges of commerce. Economic boundaries are not coincident with the rivers, lakes, and parallels of latitude which the early surveys adopted as boundaries of the states. Migration of the American people has created modern problems which must be met by modern provisions for the support of governmental services, chief among which is education.

With the facts which have been cited in mind, I advocate a period of experimentation during which the intelligence of American educators and government officials will be devoted to a careful study of the effects of new federal appropriations for the support of public schools of the elementary and secondary levels. The purpose of this

experimental endeavor should be the discovery of the best possible methods of equalizing educational opportunities in different sections of the United States. I advocate the distribution of federal funds first and in largest measure to those states in which the average income is low. I advocate that experimentation begin with some such modest sum as \$50,000,000 or \$75,000,000. I mention these sums because they were the amounts discussed and approved as emergency funds by a competent committee which was convened by the United States Commissioner of Education in 1933. The distribution must, in my judgment, be left to the discretion of a properly constituted federal authority, preferably a small commission made up of experienced educators and presided over by the United States Commissioner of Education, which shall pass on the requests made by various states for federal aid.

I am fully aware that the proposal to treat the states differently, especially if the differences in treatment imply any slightest discretion, will meet with strong objections. Indeed, I have heard objections to any plan implying discretion expressed in a small committee room with violence and hammering on the table when, I am frank to say, logic and an appeal to intelligence seemed to me more appropriate. I am also aware that discrimination among the states is highly unpopular in the Congress of the United States. However, it is possible, I am sure, to show that there is a total lack of wisdom and justice in some of the uniform grants now made to states which have wholly different needs. For example, the appropriations for agricultural-experiment stations in the various states are the same no matter how different the size or the population of the states. I venture to say that anyone except a member of Congress would see the humor of giving to each of the six states of New England an appropriation for the maintenance of an agricultural-experiment station exactly equal to the appropriation made for the same purpose to Iowa or Illinois, where there are large-scale enterprises in the field of agriculture. Equality of federal appropriations will not equalize educational opportunities. I advocate a departure from the procedure adopted in the case of agricultural-experiment stations. I advocate that the first federal appropriations for public schools be on the basis of needs, not on a per capita basis nor in accordance with any uniform plan of equal treatment of the states.

After listening to all the objections which have thus far been offered by statisticians to discrimination between the states in the distribution of federal funds for schools, I feel justified in characterizing these objections as political rather than rational. It is universally agreed without any reservations whatsoever that there are gross inequalities in education in the different states, gross inequalities in wealth, and gross inequalities in administrative competency. These inequalities are urged as the grounds for a demand that federal appropriations be made and then, inconsistently, as it seems to me, in the name of state rights, one single mathematical formula is offered and declared to contain all the wisdom that it is appropriate to apply to the situation.

I share the anxiety of those who shudder at the possibility of blundering mistakes by government officials, but I do not find the remedy for possible official incompetency in the adoption of a mathematical formula which is utterly lacking in support from experience on a national scale.

Some years ago the central span of a great bridge which was being constructed across the St. Lawrence River fell to destruction as the attempt was being made to bring it into place. The engineering calculations, which had been made by some of the best bridge architects in the world, were wrong because no one had any knowledge of the rate at which mechanical stresses are transmitted through so vast a structure. The formulas of ordinary experience were rendered inappropriate by the sheer magnitude of the span of steel. I contend that it is the part of wisdom to experiment modestly with the national problem of distributing federal funds to elementary and secondary schools. I believe that it is nothing short of folly to insist on the adoption of a formula that has worked with only limited success even in the comparatively small area of a single state.

As a second and important feature of the plan for distribution of federal funds, it will be necessary, I believe, greatly to reinforce the federal Office of Education. Valuable as the reports of this federal agency are, no one can doubt that with more adequate resources they can be greatly improved. The Office of Education should become a competent center of investigation equipped to gather the information necessary to furnish the people of this country with a true and adequate account of the success of federal support of schools

and of the points at which the experimental plan is in need of revision.

If experience accumulated during experimentation with the equalization fund justifies the federal government in taking over a share of the support of schools in all the states, then federal grants should be made the basis of certain demands which will assure the nation of proper conduct of its schools. It is easy to enumerate some of the guaranties that the nation has a right to demand. One such is that there will be a decent enforcement of the fundamental law now included in a number of state constitutions requiring that there be no discrimination against any citizen because of race or color. A second guaranty which is essential is that schools in all sections of each state be conducted each year for a sufficient number of months to provide proper preparation for citizenship. I have heard it argued that public opinion can be relied on to control the length of the school year. In reply, I say that I can take anyone who really desires the truth to states where the cities enjoy twice as long a school year as do some of the remote rural areas. Public opinion is likely to become fixed in its acceptance of that which is familiar. If federal support is to be something more than a substitute for support by local taxes, it must, I hold, be directed toward the elevation of public opinion. The length of the school year is an objective fact, but there is nothing self-propelling about the local school organization in an ignorant and backward community.

It is being demanded in some quarters that the federal government give to the states money for schools without attaching any conditions whatsoever to the grants. Sheer expediency dictates, it seems to me, that educators recognize the improbability that Congress will abdicate to such an extent. Beyond expediency, however, is the consideration that educators ought always to be ready to attach to any plea for new resources the condition that the resources will be used to improve schools rather than merely to perpetuate present inadequacies.

Another essential of school organization is the power to retain pupils and compel attendance over a period of years. The laws of the various states are so different in their prescriptions with regard to school attendance that it is little short of grotesque to advocate like treatment of the states. I have heard it argued from the platform of this department that federal funds should be given to the

states without any requirements of any kind. In support of this contention it was said that England pays a large share of the cost of education in local communities but does not in any way interfere with the local program of instruction. This statement is truly astonishing. It is a fact which should be known to anyone who ventures to speak on the English system of education that, when compulsory school attendance laws are passed in England, they are passed by the Parliament, which consists of the House of Lords and the House of Commons. The compulsory school attendance laws are not left to the minor political units. If the prescription that pupils shall attend school up to a certain age is not a method of controlling the instructional program of communities, I can hardly imagine what the word "control" means.

It is probably unconstitutional for the Senate and the House of Representatives of the United States to do what the Parliament of England does, but it is certainly possible for the federal government of this country to exercise coercion of reluctant parents and of communities by making the passage of a reasonable compulsory school attendance law a condition antecedent to the receipt by a state of federal support for common schools.

I could mention other minimum essentials of education which, in my judgment, should be written into any federal law giving support to schools. Perhaps the examples which I have given are for the moment adequate. I believe very sincerely that education should and will command in the future larger support than it has in the past. I believe that it is the duty of educators to think first and foremost of ways of improving education. We of the schools are public servants. We must indeed make clear to those whom we serve the necessity of providing adequate resources for our work, but, even more than other public servants, we should be prepared to guarantee high-grade service and should welcome the support of law in so doing. Education has in the past been thought of by the American people as one of their most precious democratic opportunities. Of late, many parents are confused. They hear educators disputing among themselves about the contents and methods of teaching. They hear competent witnesses testify that education is not suited to the needs of modern society. When representatives of the schools ask for increased support, the common people are thrown into a

state of perplexed doubt. A school year of reasonable length, improved training of teachers, and power to retain pupils can probably be agreed upon by a great many, if not all, educators as essential to the maintenance of adequate education in a democratic civilization. If the list of agreed upon virtues can be increased, I will extend my advocacy of requirements to include the additions. For my own part, I should like to include improvement of the curriculum, but I doubt whether all the members of this assembly would follow me with approval if I indicated what improvement of the curriculum means to my mind. I am hopeful that at some time in the future expert educational opinion will accept more generally the curriculum which I am sure ought to be adopted by the public schools, but I judge that experimentation in the use of federal funds should not at the moment be thought of as directly involving the curriculum.

I am by no means sanguine that the plan which I have proposed can be carried out in full. In fact, I feel very sure that there is a long, hard struggle ahead before any federal support for schools will be forthcoming. I am aware, too, that many educators will refuse to subscribe to discriminative distribution of federal funds and prescribed conditions in any federal law. I regret that we are in disagreement. I venture to express the hope that our disagreement will not lead us to divide into party organizations dominated by fixed prejudices. I believe that the Department of Superintendence has shown high wisdom in calling for a free and frank expression of views on this topic. The next step which, in my opinion, organized education should take is the serious and continued study of the problem of federal participation in education. It will certainly be disastrous if educators have to lay the needs of public schools before the federal administration with the confession that these needs have not been thoroughly considered and that alternatives have not been weighed and impartially evaluated. My earnest plea to this body is not to accept any view as finally and fully established. If we obstinately dogmatic, there is great danger that we shall defeat our own purposes. I urge an open-minded consideration of the needs of American youth and an ultimate effort to secure from the federal administration and the Congress the types of aid which will contribute most fully to the equalization of educational opportunities and the improvement of the school program.

A METHOD FOR DETERMINING THE NEED FOR SUPERVISED SUMMER RECREATION

HARRY G. ABRAHAM

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During the past few years in a small city in the Middle West, a group of parents with children of junior and senior high school age who have not been able to find employment during the summer months have been advocating the establishment, maintenance, and supervision of a recreational center in the community to take care of the leisure hours forced on the younger generation by the depression. The city has not made adequate provision for the apparent need. The advocates of summer recreation, being unable to convince the mayor and the city council that organized playground supervision is necessary, have turned to the school for the solution of their problem. The school executive has had to consider the problem brought to him and has therefore been faced with the questions: Is the playground space in the community adequate? Is there a need for summer playground supervision?

A survey of the playground space in the city shows that the facilities are adequate to take care of the recreational needs of the community. The playgrounds on the premises of the two elementary schools are large enough to accommodate the children in the vicinity of these schools. The playground of the junior high school, although not large, will accommodate the children in the vicinity of that school. The high-school grounds, a tract of approximately nine acres, are ample. On the grounds are a football field, a running track, pits for jumping, a baseball diamond, two softball fields, a soccer field, and tennis courts. It is evident that there is no need to acquire more playground space.

The schools provide sufficient playground supervision during the school year but make no provision for supervision during the summer months. The failure to provide supervision does not mean that summer playground supervision is unnecessary. In order that the

need for supervision might be determined, it was necessary to ascertain the summertime activities of the boys and girls in the community. The school executive was fortunate in being able to make a comparative study of the summer activities of the boys and girls in the high school for the years 1928 and 1934, respectively, from data in the records of the guidance and placement department of the high school.

The occupations of the boys during the summer of 1928 are shown in Table I. One hundred and forty-eight boys were questioned con-

TABLE I
JOBS HELD BY 148 HIGH-SCHOOL BOYS DURING SUMMER OF 1928

Employment	Number of Boys	Employment	Number of Boys
Farm hand.....	48	Post-office special-delivery boy.....	1
Caddy.....	32	Wholesale-house employee.....	1
Clerk.....	15	Office boy.....	1
Odd jobs.....	12	Cement worker.....	1
Paper boy.....	9	Waiter.....	1
Dairy hand.....	7	Chauffeur.....	1
Truck-garden helper.....	5	Poultry-farm hand.....	1
Newspaper-office helper.....	3	Fox-farm hand.....	1
Truck driver.....	3	Terra-cotta-shop employee.....	1
Carpenter.....	2	Tailor-shop employee.....	1
Mechanic.....	2	Tanning-factory hand.....	1
Summer-camp assistant.....	2	Theater doorman.....	1
Salesman.....	2	Not employed.....	9
Caretaker of grounds.....	2		
Taxicab driver.....	1		
Western Union boy.....	1	Total.....	167

cerning their summer activities, nine of whom did not work. In Table I, 167 jobs are listed. It is evident therefore that some of the boys reported more than one job. Since the paper boys and the boys employed on odd jobs were working at their jobs but a few hours a day, the number of boys who were idle during the summer was greater than the table indicates.

The employment of the high-school boys of the community during the summer of 1934 is shown in Table II. One hundred and ninety high-school boys were questioned regarding their activities during the summer vacation of 1934. Of this group, 128 reported that they had been employed at least part time. Sixty-two boys did not work. The paper boys, the city-band members, and the boys doing odd jobs

worked only a few hours a week. This group, then, increased the number of boys who were idle during the summer vacation from sixty-two to approximately a hundred boys, or one-half of the boys in school.

TABLE II

JOBS HELD BY 190 HIGH-SCHOOL BOYS DURING SUMMER OF 1934

Employment	Number of Boys	Employment	Number of Boys
Farm hand.....	55	Mechanic.....	4
Caddy.....	17	Truck-garden hand.....	4
Paper boy.....	17	Office boy.....	2
Odd jobs.....	11	Not employed.....	62
Clerk.....	10		
City-band member.....	8	Total.....	190

The employment of the high-school girls during the summers of 1928 and 1934 is shown in Table III. Of the 165 girls who were questioned regarding their activities during the summer of 1928, 100 did

TABLE III

JOBS HELD BY HIGH-SCHOOL GIRLS DURING SUMMERS OF 1928 AND 1934

EMPLOYMENT	NUMBER OF GIRLS	
	1928	1934
Housework.....	35	30
Clerk.....	10	3
Nursemaid.....	9	6
Waitress.....	7	2
Stenographer.....	3	0
Paper route.....	1	0
Not employed.....	100	130
Total.....	165	171

not work. In other words, comparatively few girls found employment even during the period of greatest prosperity. One hundred and seventy-one girls reported for 1934, only forty-one of whom worked. The low percentage of girls gainfully employed at both periods leaves no doubt in the mind of the writer that the girls, as well as the boys, would profit from the supervision of their summertime leisure hours.

A comparison of the conditions existing in 1928 and in 1934 shows plainly that the number of boys and girls without gainful employment increased materially during that period. The number of boys without gainful employment increased to approximately 50 per cent of the boys in the school. When the number of farm boys is deducted from the total number of high-school boys who held jobs, the situation appears even more alarming. The percentage of city boys not employed is almost three-fourths of the total number of city boys.

This study proves without a doubt that a large number of high-school boys and girls are idle during the summer vacation. A similar study of the junior high school boys and girls would probably show an even greater percentage of unemployment, and it may be assumed that practically all the elementary-school children would be without gainful employment. Since the situation in the community studied is probably typical of the conditions in nearly any community, it is clear that there is a need during the summer for some plan of recreational supervision for the boys and girls in elementary schools, junior high schools, and senior high schools. In view of the fact that there is a definite need for the operation of playgrounds, it is the duty of the school executive to present his findings before the board of education and to convince the board that the school is the logical agency to care for this need through the extension of the physical-education program to an all-year program.

THE PLACE OF ORAL READING IN AN IMPROVED PROGRAM OF READING

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The place and the value of oral reading merit careful and unprejudiced study today. In such a study we face a series of challenging problems: Is the current neglect of oral reading in many schools in harmony with sound educational policy? What values, if any, attach to oral reading that justify a definite place for it in an improved program of teaching? Are traditional methods of teaching adequate for attaining the broader values which oral reading may contribute? Before an attempt is made to answer such questions, it will be advisable to review briefly the cause of the decline of oral reading during the past three decades.

EARLY EMPHASIS ON ORAL READING

Throughout the nineteenth century oral reading held a place of pre-eminence in elementary education. Oral reading was emphasized so vigorously that other values which attach to reading were often neglected. The evils resulting from this practice were pointed out by Horace Mann as early as 1838. In a report which he made that year to the State Board of Education of Massachusetts, he stated that he had attempted to learn, "with some degree of numerical accuracy, how far the reading in our schools is an exercise of the mind in thinking and feeling, and how far it is a barren action of the organs of speech upon the atmosphere." The information which he secured led to the conclusion "that more than eleven-twelfths of all the children in the reading classes . . . do not understand the meaning of the words they read; that they do not master the sense of the reading lessons, and that the ideas and feelings intended by the author to be conveyed to, and excited in, the reader's mind, still rest in the author's intention, never having yet reached the place of their destination." "It would hardly seem," said Mann further,

"that the combined efforts of all persons engaged could have accomplished more in defeating the true objects of reading."¹ Similar criticisms appeared frequently in the latter half of the nineteenth century, and even more recently, and provide striking evidence of the inadequate results secured.

Some of the reasons for this failure, as pointed out by Vera A. Paul, are: "(a) inadequate classroom practices, (b) vague, indefinite objectives, (c) except for securing better mechanics, almost no knowledge of workable techniques, (d) entire unsuitability of material used for oral interpretation, and (e) lack of interest and inadequate preparation on the part of teachers."²

CHANGE TO EMPHASIS ON SILENT READING

During the first quarter of the present century emphasis in teaching changed rapidly from oral to silent reading partly because teachers in increasing numbers were recognizing that the results of the prevailing methods of teaching were unsatisfactory. Of even greater significance was the increased importance attached to silent reading. Its value in social life was acclaimed regularly on the platform and in the press. Furthermore, comparative studies of oral reading and of silent reading provided convincing evidence of the greater economy and efficiency of the latter. It is not surprising, therefore, that teachers were urged to give increased attention to the development of habits of intelligent silent reading. For example, S. H. Clark, one of America's greatest artists in oral interpretation, said in 1915:

Our schools have made, and many still make, the fatal mistake of taking it for granted that because vocal expression may be of considerable importance as the outcome of the reading lesson, it is of the first importance. It is not. Beautiful as is the adequate vocal interpretation of literature, it is of infinitesimally less worth in a system of education than the ability to interpret silently. For the great majority of men and women, the need for correct impression is the most crying of all.³

¹ Horace Mann, "Second Annual Report of the Secretary of the Board of Education, 1838," in *Life and Works of Horace Mann*, II, 531-32. Boston: Lee & Shepard, 1891.

² Vera Alice Paul, *Present Trend of Thought on Oral Reading*, p. 13. College of Education Series, No. 31. University of Iowa Extension Bulletin, No. 299. Iowa City, Iowa: University of Iowa, 1932.

³ S. H. Clark, *Interpretation of the Printed Page*, p. 14. Evanston, Illinois: Row, Peterson & Co., 1915.

As the importance of silent reading was clearly recognized, specific provision for silent reading was made in the daily programs of many schools. Between 1915 and 1930 the emphasis given to this type of reading was greatly accentuated for two reasons. Teachers at various grade levels discovered that the development of habits of intelligent silent reading was a challenging and a time-consuming task. Furthermore, the expansion and the enrichment of the school curriculum greatly increased the demand for efficiency in the various forms and applications of reading required in study activities. As a result, teachers found it necessary to devote a large proportion of the reading time to guidance in silent reading. In a surprisingly large number of schools little or no time was reserved for the development and the refinement of habits involved in oral reading. In fact, a false antagonism between oral and silent reading was often stimulated by ardent advocates of the latter.

PRESENT SITUATION

The situation today may be briefly summarized. At one extreme are those schools which give more or less exclusive emphasis to silent reading. Unfortunately, the pupils who attend these schools are deprived of many of the advantages which result from legitimate attention to oral reading. At the opposite extreme are those schools which limit guidance largely to oral-reading activities. In a surprisingly large number of cases the methods used are formal and ineffective, and the results are unsatisfactory. Between these two extremes are numerous variations in emphasis on oral and silent reading. Not infrequently superior results are attained through well-balanced and effective emphasis on both types of reading. Practically all leaders in the field heartily indorse such a program. Furthermore, studies of the achievement of pupils supply striking evidence of the deficiencies which result from inadequate emphasis on either type of reading. It may safely be concluded, therefore, that boys and girls should receive guidance, as needed, in the various forms of both oral and silent reading in which they do and should engage.

VALUES OF ORAL READING

What are the specific values that justify more or less emphasis on oral reading? Concerning this issue writers express two distinct

views. Some believe that oral reading serves merely as an aid in acquiring mature silent-reading habits and that oral reading should be discontinued when it has served that purpose. Others believe that additional values attach to oral reading which justify a much broader program of oral-reading activities. Since I adhere to the latter view, both types of values will be considered in the following discussion.

First, the fact should be emphasized that oral activities promote rapid progress in learning to read. When a child enters school, he usually has a speaking vocabulary of a thousand or more words, and he associates meaning with a much larger number that he hears in daily conversation. On account of the frequent use of oral language, the relation between a spoken word and its meaning is so intimate that one stands in experience for the other. It follows that oral activities in early reading lessons promote rapid progress in associating meanings and symbols. One of the criticisms of this procedure is that it encourages vocalization in all reading activities. This danger can be avoided, however, by requiring much silent reading from the beginning. If the child is keenly interested in the content of what he is reading, his eyes move along the page with increasing rapidity and the initial tendency to vocalize words is soon suppressed.

A second value of oral reading is that it aids in establishing habits of importance in both oral and silent reading. Experimental studies show clearly that in the lower grades the basic habits involved in reading, such as accurate recognition of the identity of words, span of recognition, rate of recognition, and the progress of perceptions along the lines, are much alike in both oral and silent reading. These habits are so essential in both kinds of reading that progress made in one type contributes to development in the other. For example, a reasonable amount of sight oral reading in Grade II not only makes for greater fluency in oral reading but contributes also to increased speed of silent reading. A special advantage in the use of some oral reading is that it serves as a check on the accuracy and the completeness of the associations that are formed. The mistake made in the past was to use oral reading exclusively during the lower grades. The fact is now recognized that some practice in oral reading should be supplemented with wide opportunity to read silently.

Oral reading also aids in the development and the refinement of language habits. A child acquires his forms of expression largely through imitation. Before he enters school, his parents and associates supply him with models. After a limited amount of progress in reading, he begins to encounter new words and more mature forms of expression. If these are used in class discussion or in oral reading, the likelihood is great that they will become permanent additions to the child's oral vocabulary. Audience reading and dramatization also contribute to the improvement of language habits. Some of the most frequent results secured are improvement in enunciation and pronunciation, enlargement of the vocabulary, and the development of refined modes of expression. Because of the very nature of these habits, other school activities, such as those of the language period, should also contribute to the development of such habits.

Supplementing the foregoing values are three which are somewhat less tangible but real. First, oral reading is a clearly recognized aid in promoting literary appreciation. Wide use of oral reading during the story hour, in assembly programs, and during literature periods in both elementary and secondary schools is concrete evidence of such recognition. Its value in this connection is evident when selections are read in which appreciation depends to a greater or less extent on auditory values. Second, oral reading has distinct value in personality development. In addition to the cultivation of hearty enjoyment and sound values, well-directed oral reading promotes ease, poise, confidence, power in sustained thought, and the control of emotions. Third, oral reading contributes generously to the cultural growth of individuals. Through the contacts and appreciations acquired in oral reading, children secure a broader and richer understanding of life. The foregoing statements should not be interpreted to mean that oral reading is the only agency through which these values can be attained. The view is vigorously supported, however, that it is an essential means of promoting desirable types of development.

Of major importance in this discussion is the social value of oral reading. Various studies made during recent years show clearly that oral reading serves many useful purposes both in childhood and in adult life. Its value in the home and school life of the child is too

well known to merit repetition here. Of special significance is the fact that the recent expansion and enrichment of the curriculum has tended to increase rather than decrease that value. Clear evidence of this fact is found in the frequent and vital uses made today of dramatization, in the increasing use made of oral reading in sharing enjoyable literary experiences and in pooling information secured individually through silent reading and study.

The value of oral reading in adult life is equally impressive. The conception of education as a continuous process increases rather than decreases the need for reasonable ability in oral interpretation. The popularity of the radio and the public forum has recently increased the need for superior quality of oral interpretation. The additional fact should be pointed out that children and adults do not engage in oral reading on many occasions when it would be desirable for them to do so. For example, parents, as a rule, do not read to their children with sufficient frequency to stimulate strong interests in reading and to establish the habit of reading independently during leisure hours. These and other facts justify the conclusion that boys and girls should learn to read well orally and to recognize occasions when oral reading can be used to distinct advantage.

If the discussion thus far has achieved its purpose, the fact should be clear that significant social and educational values attach to oral reading today. Neither neglect nor overemphasis of oral reading can be rationally defended. Sound educational policy dictates that children should receive appropriate guidance in both oral and silent reading. During the last two decades rapid progress has been made in developing habits of intelligent silent reading. All this gain must be preserved and further promoted. Boys and girls should also learn to read well orally and thus acquire an additional means of enrichment and of attaining practical ends.

ACTIVITIES FOR SECURING VALUES OF ORAL READING

If reasonable advantage is to be taken of the various values inherent in oral reading, a well-balanced program of activities should be provided throughout the elementary school. This program will not only involve a portion of the regular reading period but will provide

frequent opportunities for oral reading during the story hour, in the language period, in assembly programs, in the content fields, during the literature period, and on various special occasions. The variety of activities provided may be classified into three general types: those which promote the rapid development of basic reading habits; those which insure growth under guidance in additional attitudes and habits involved in superior oral interpretation; and those which promote, in highly motivated audience situations, intellectual growth, hearty enjoyment, literary appreciation, and personality development.

The first is best characterized by the term "reading aloud." It is used widely as a means of promoting rapid progress in associating known meanings with written or printed symbols in the early grades. The general methods used in teaching are determined by the specific aims which dominate successive stages of progress in learning to read. In early reading activities, reading aloud serves as a natural means of facilitating right associations. It also aids in keeping a group together and in indicating to the teacher the progress and the needs of individual pupils. Improvement in expressing meanings is secured at times through preliminary silent reading and through the suggestions and models presented by the teacher. Much opportunity for silent reading should also be provided early in order to promote the development of appropriate habits and to suppress the tendency to vocalize. The relative emphasis given to oral and silent reading should be determined primarily in terms of the progress and the needs of the pupils. In this connection, I know of no better general formula than that submitted a decade ago by the National Committee on Reading to the effect that approximately equal emphasis be given to oral and silent reading in Grade I.

After pupils have acquired a reasonable sight vocabulary, familiar words are used repeatedly in different thought patterns. In order to read with reasonable fluency, pupils must acquire facility in recognizing familiar words in increasingly large units. To this end much simple material is essential for silent reading. In addition, frequent opportunity to engage in sight oral reading has distinct value. It not only promotes the establishment of basic habits involved in both oral and silent reading, but it also provides the teacher with specific

information concerning the progress and the needs of pupils. Furthermore, practice in the accurate recognition and expression of the content of a selection develops habits essential in refined oral interpretation. The materials used in sight reading should be highly charged with interest and relatively free from word difficulties. Specific motives for reading should be provided which appeal to the pupils as significant and worth while. Furthermore, attention should be directed primarily during the reading period to the content of what is read. If new words are encountered, they should be pronounced for the pupil so that he may proceed with the fluent, thoughtful interpretation of the passage. Sight oral reading should not be continued at a given level of difficulty after the pupil has acquired fluent accurate habits. Furthermore, it should be used only when it serves a definite need and is directed specifically to a particular end.

A second general type of oral reading is often called directed oral interpretation. Its purpose is to promote growth in the habits involved in superior performance in this field. It begins as soon as pupils have learned to recognize the words of simple passages and continues to a greater or less extent even into the high-school and college periods. Of basic importance in this connection is the guiding influence of a teacher who reads well orally. The models which he presents during the story hour and during the reading period serve as a guide and an inspiration to his pupils. Conscious standards on the part of the reader are essential. Various efforts have recently been made to provide teachers with helpful suggestions. For example, Ellen C. Henderson points out:

Every good reader of any age or degree of experiences does the following:

1. He has a reason for reading aloud. This purpose includes a determination to make others hear, understand, and appreciate what he is trying to express.
2. He thinks and feels as he speaks.
3. He thinks, recognizes the meaning, and speaks in idea units, not in word units.
4. He pauses between ideas as everyone does in talking.
5. He continues to think until he has given the entire sentence as one does in talk.
6. He lets the eyes and other parts of the face and body react as they do in talking, or as they want to react in order to give the thought and feeling in the selection.

7. In order to get the ideas which are to be given, he reads ahead at a rapid rate during the moments when his eyes look from the audience to the text.¹

As a source of other helpful suggestions, the University of Iowa Extension Bulletin entitled *Present Trend of Thought on Oral Reading* should be mentioned. The author discusses the techniques of getting both the logical and the emotional content from the printed page and considers the techniques of expressing logical and emotional meanings. In concluding this section, she states that "for truly great interpretation the reader must have richness of understanding, emotional sensitivity, a well-trained mind, a beautiful, flexible voice, a vital, expressive body, a consuming desire to express the beauty and truth on the printed page. Not many attain the heights, but there is room for all along the way."²

Herein lie significant opportunities and a real challenge. In various sections of the country teachers in increasing numbers are making intensive studies of the problems involved in establishing good habits of oral reading. Special periods are reserved from time to time for developing standards and for providing growth in appropriate habits of oral interpretation. Oftentimes pupils prepare different parts of the same selection and read them to the rest of the group for criticism in the light of previously adopted principles. With even greater frequency added stimulus is provided by having pupils present new materials. Guidance is provided in the interpretation of materials of informational and various literary types. As pupils advance through the grades, the scope of the training and guidance increases. At all levels, however, the fact is kept clearly in mind that many pupils experience genuine handicaps in oral reading. The nature of their difficulties is studied carefully, and great care is observed not to create a dislike for reading by endeavoring to force the children to attainments which are beyond their potentialities.

The third type of oral reading is known as motivated audience reading. It serves two significant purposes in an improved program of teaching. The one is to provide incentives for improvement in oral interpretation. Its chief purpose, however, is to contribute

¹ Ellen C. Henderson, "Some Principles of Oral Reading," *Quarterly Journal of Speech*, XX (April, 1934), 287-99.

² Vera Alice Paul, *op. cit.*, p. 39.

pleasure and understanding and to make life fuller, richer, and more meaningful. As explained earlier, motivated audience reading may occur at all levels, from the kindergarten to the college. At first, the teacher may be the chief contributor, as in the story hour. As the pupils make progress in oral reading, they participate joyously in the activities of the dramatization period, in assembly programs, and in various special occasions. Of large significance are the enriching values that may also be secured through highly motivated audience reading in the different content fields and in the enjoyable pursuit of good literature. A somewhat wide survey of current practices leads to the conclusion that schools in general do not utilize as fully as they should the broader values inherent in superior oral interpretation.

CONCLUSION

In concluding, it should be repeated that the current program of teaching reading needs to be so reconstructed as to retain and to further emphasize all the values inherent in intelligent silent reading and, in addition, to utilize the training and enriching values that oral reading may contribute. For achieving the latter end the traditional oral-reading program is wholly inadequate. There is urgent need for the adoption of a vital program that will secure economically and effectively the unique values inherent in oral reading.

NATURE AND AMOUNT OF ARITHMETIC IN READERS FOR GRADES I AND II

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Within the last few years there has been a decided trend toward eliminating abstract number content from the field of arithmetic in Grades I and II. In its place concrete arithmetic is taught, and the child is provided with a fund of rich number meanings and a wealth of number experiences in order that he may be able to think in quantitative terms. If a child is to think quantitatively and to express himself in quantitative terms, he must have a suitable vocabulary. The purpose of the study reported in this article was to determine the extent to which the textbooks in reading for Grades I and II contribute to the arithmetical vocabulary which, according to many curriculums, a child is expected to have when entering Grade III. The investigation dealt with numbers expressed in words, Arabic and Roman numerals, units of measure, money, time, size, location, quantity, comparisons, and various mathematical terms and concepts found in primary readers. It is of interest to know the nature and the amount of arithmetical information which the child has acquired in his reading previous to his acquaintance with the textbook in arithmetic.

As arithmetic books are usually introduced in Grade III, this study was confined to an analysis of the books read in Grades I and II. The primer, the first reader, and the second reader in the following ten sets of readers were analyzed.

Clara Belle Baker, Mary Maud Reed, and Edna Dean Baker, *The Curriculum Readers*. Indianapolis, Indiana: Bobbs-Merrill Co., 1934.

B. R. Buckingham (compiler and editor), *The Children's Bookshelf*. Boston: Ginn & Co., 1934.

Anna Dorothea Cordts, *The New Path to Reading*. Boston: Ginn & Co., 1935 (revised).

Katherine E. Dopp, May Pitts, and S. C. Garrison, *Happy Road to Reading*. Chicago: Rand McNally & Co., 1935.

William H. Elson and William S. Gray, *The Elson Basic Readers*. Chicago: Scott, Foresman & Co., 1930 and 1931.

Arthur I. Gates and Miriam Blanton Huber, *The Work-Play Books*. New York: Macmillan Co., 1930.

Rose Lees Hardy and Geneva Johnston Hecox, *Good Companions*. New York: Newson & Co., 1931 and 1933.

Cora M. Martin, *Real Life Readers*. New York: Charles Scribner's Sons, 1930.

Henry Suzzallo, George E. Freeland, Katherine L. McLaughlin, and Ada M. Skinner, *Fact and Story Readers*. Chicago: American Book Co., 1930.

Alberta Walker and Ethel Summy, *The Study Readers*. New York: Charles E. Merrill Co., 1928, 1929, and 1934 (revised).

These readers are comparatively recent, all having been published during the time the arithmetic curriculum in the primary grades has been undergoing changes. The writer had in mind the possibility that recent textbooks in reading would reflect the thought that there should be close integration of all work in a grade.

Every selection was read carefully, and all arithmetical terms were tabulated on cards, one word or term on a card. Each mention, the name of the book, and the page on which the term appeared were recorded. Tabulations of frequencies were made under the following headings: "Terms referring to size," "Terms referring to quantity," "Terms referring to time," "Terms referring to location," "Numbers expressed in words," "Arabic numerals," "Miscellaneous arithmetical concepts," "Terms referring to experiences with money," "Miscellaneous arithmetical terms," "Terms of comparison," "Ordinals," "Terms referring to groups," "Miscellaneous measures," and "Roman numerals." The paragraph was taken as the unit or basis in identifying terms with mathematical value. To be included, a word used in the paragraph must have distinct arithmetical meaning, such as references to size, quantity, location, number, money, time, or groups or such terms as "added," "square," and "circle." Singular and plural forms were tabulated under the singular form. Numbers appearing in the table of contents and page numbers were not included.

The frequency of use of the various items is shown in Table I. The data reveal the preponderant use of "little" and "big." While only eighteen different terms referring to size are used, these terms

TABLE I

TERMS AND ITEMS RELATED TO ARITHMETIC OR QUANTITATIVE CONCEPTS USED IN PRIMERS AND FIRST- AND SECOND-GRADE BOOKS OF TEN SERIES OF READERS

Item	Number of Books Containing Item	Frequency of Mention
Terms referring to size:		
big.....	30	1,339
deep.....	9	46
great.....	8	53
huge.....	1	17
large.....	8	75
little.....	30	2,842
long.....	20	260
middle-sized.....	2	22
narrow.....	1	1
short.....	5	30
size.....	6	16
small.....	12	102
tall.....	8	51
thick.....	5	11
thin.....	6	13
tiny.....	9	67
wee.....	6	156
wide.....	4	12
Total.....		5,113
Terms referring to quantity:		
all [every one].....	28	703
all the other.....	14	25
alone.....	14	86
another.....	18	180
any.....	13	58
any one.....	12	44
both.....	8	53
empty.....	2	7
enough.....	8	42
every.....	25	220
every one.....	14	73
few.....	5	10
fill.....	12	50
full.....	12	57
lot [much].....	9	44
many.....	23	278
much.....	9	29
no [not any].....	26	291
no more.....	4	8
none.....	3	7
no one.....	16	84
not any.....	1	1
nothing.....	10	20
not one.....	7	13

TABLE I—Continued

Item	Number of Books Containing Item	Frequency of Mention
<i>Terms referring to quantity—continued:</i>		
number [several].....	1	3
one more.....	3	9
other.....	20	283
several.....	1	1
some.....	27	913
some more.....	10	27
Total.....		3,619
<i>Terms referring to time:</i>		
minute.....	6	37
few minutes.....	1	2
next minute.....	3	5
hour.....	2	9
two hours.....	1	1
day.....	24	298
all day.....	19	89
three days.....	2	2
five days.....	1	1
few days.....	4	11
ten days.....	1	2
same day.....	2	2
several days.....	1	3
many days.....	9	9
next day.....	10	58
day before.....	2	3
day after.....	5	6
week.....	8	17
one week.....	2	2
two weeks.....	3	4
three weeks.....	2	3
four weeks.....	1	2
last week.....	1	2
month.....	3	12
next month.....	1	1
year.....	10	44
last year.....	1	1
next year.....	2	2
two years.....	1	1
many years.....	3	4
season.....	1	1
spring.....	11	75
summer.....	16	103
all summer.....	8	18
last summer.....	2	2
next summer.....	3	6
autumn.....	1	3
fall [autumn].....	8	19
last fall.....	1	1
winter.....	14	164

TABLE I—*Continued*

Item	Number of Books Containing Item	Frequency of Mention
<i>Terms referring to time—continued:</i>		
all winter.....	11	32
next winter.....	2	2
one o'clock.....	2	3
half past one o'clock.....	1	1
two o'clock.....	2	3
three o'clock.....	1	3
four o'clock.....	3	8
five o'clock.....	2	6
six o'clock.....	2	5
seven o'clock.....	3	4
eight o'clock.....	2	2
ten o'clock.....	3	4
eleven o'clock.....	1	1
breakfast time.....	2	3
after breakfast.....	6	8
morning.....	23	155
all morning.....	4	4
next morning.....	18	66
this morning.....	12	26
noon.....	2	2
lunch time.....	5	8
after lunch.....	6	11
dinner time.....	5	7
after dinner.....	6	11
afternoon.....	8	41
next afternoon.....	2	2
after school.....	5	7
supper time.....	5	6
after supper.....	6	13
evening.....	8	39
all evening.....	1	1
next evening.....	1	1
this evening.....	2	6
time for bed.....	6	9
night.....	20	152
all night.....	9	25
last night.....	7	13
next night.....	3	4
midnight.....	2	6
today.....	21	109
tomorrow.....	14	58
tomorrow morning.....	5	5
tomorrow night.....	4	4
day after tomorrow.....	2	2
tonight.....	7	18
yesterday.....	5	16
always.....	13	45
before [earlier].....	9	32
early.....	10	31
late.....	4	15

TABLE I—*Continued*

Item	Number of Books Containing Item	Frequency of Mention
<i>Terms referring to time—continued:</i>		
now.....	25	368
often.....	7	28
soon.....	20	376
Sunday.....	2	5
Monday.....	1	3
Tuesday.....	1	1
Thursday.....	1	3
Friday.....	1	5
Saturday.....	8	31
February.....	1	1
March.....	1	1
April.....	1	2
May.....	3	3
June.....	1	2
New Year.....	1	4
Valentine's Day.....	4	13
Washington's Birthday.....	1	3
April Fools' Day.....	1	2
Easter.....	5	48
Fourth of July.....	1	7
Halloween.....	5	20
Thanksgiving.....	5	35
Christmas.....	12	74
Total.....		3,104
<i>Terms referring to location:</i>		
above.....	8	18
ahead.....	3	5
back.....	11	51
before [in front].....	7	20
beginning.....	6	12
behind.....	18	141
below.....	5	12
beside.....	11	46
between.....	7	27
bottom.....	8	34
center.....	1	4
down.....	20	489
edge.....	6	27
end.....	15	82
front.....	15	115
high.....	18	108
hind.....	5	23
last.....	13	34
left.....	11	44
low.....	8	16
middle.....	9	70
near.....	17	147
next.....	22	295

TABLE I—Continued

Item	Number of Books Containing Item	Frequency of Mention
Terms referring to location— <i>continued</i> :		
order.....	2	3
over.....	21	89
right.....	10	41
row.....	6	27
side by side.....	2	2
one side.....	3	10
the other side.....	10	17
top.....	15	115
under.....	24	248
up.....	28	386
upper.....	2	2
Total.....		2,760
Numbers expressed in words:		
one.....	29	774
two.....	29	533
three.....	28	272
four.....	23	177
five.....	22	111
six.....	15	86
seven.....	14	54
eight.....	8	21
nine.....	6	7
ten.....	13	47
twelve.....	1	1
fifteen.....	3	10
twenty.....	1	2
twenty-five.....	1	4
thirty.....	1	1
fifty.....	1	4
hundred.....	4	22
thousand.....	1	8
million.....	1	8
Total.....		2,142
Arabic numerals:		
1.....	20	302
2.....	20	298
3.....	20	277
4.....	20	236
5.....	19	181
6.....	19	136
7.....	19	107
8.....	19	85
9.....	19	65
10.....	17	50
11.....	14	36
12.....	12	27

TABLE I—*Continued*

Item	Number of Books Containing Item	Frequency of Mention
<i>Arabic numerals—continued:</i>		
13.....	9	15
14.....	7	10
15.....	6	8
16-18 (4 each).....	3	12
19-24 (3 each).....	3	18
25-29 (2 each).....	2	10
30-41 (1 each).....	1	12
300.....	1	1
Total.....		1,886
<i>Miscellaneous arithmetical concepts:</i>		
again.....	19	269
clock.....	6	24
each.....	19	203
each one.....	10	19
each other.....	7	17
far.....	15	60
fast.....	21	142
heavy.....	5	17
new.....	19	247
next one.....	4	6
old.....	21	315
once.....	9	20
once more.....	7	16
one another.....	7	14
one by one.....	8	15
slow.....	1	1
together.....	15	91
trade.....	1	4
watch [timepiece].....	3	10
which one.....	6	19
young.....	7	31
Total.....		1,540
<i>Terms referring to experiences with money:</i>		
\$20.00.....	1	1
one cent.....	1	1
penny.....	9	92
five cents.....	1	7
nickel.....	3	32
dime.....	5	16
ten cents.....	2	4
dollar.....	4	15
a hundred dollars.....	1	2
bank.....	4	20
bought.....	8	32
buy.....	21	237

TABLE I—*Continued*

Item	Number of Books Containing Item	Frequency of Mention
Terms referring to experiences with money— <i>continued</i> :		
cents.....	4	15
change.....	1	4
cost.....	2	3
earn.....	3	5
finer [penalties].....	1	4
free [no cost].....	1	2
gold.....	3	24
gold pieces.....	1	1
market.....	8	77
money.....	14	106
pay, paid.....	6	17
sale.....	2	4
save.....	6	22
sell.....	10	71
shop.....	6	42
silver.....	2	2
sold.....	1	1
spends.....	3	7
store.....	22	200
worth.....	3	5
Total.....		1,071
Miscellaneous arithmetical terms:		
added.....	1	1
answer.....	7	47
circle.....	2	10
count.....	15	89
curve.....	1	4
cut in two.....	1	1
half.....	6	19
how much.....	7	11
how many.....	11	33
left [remainder].....	12	24
lost.....	17	93
missing part.....	1	1
number.....	6	113
number work.....	1	3
part.....	14	63
proves.....	1	1
question.....	2	8
rest [remainder].....	6	8
round.....	13	64
square.....	3	7
straight.....	4	11
three times (×).....	2	2
twice.....	2	10
weigh.....	1	4
whole.....	4	14
Total.....		641

TABLE I—*Continued*

Item	Number of Books Containing Item	Frequency of Mention
Terms of comparison:		
as big as.....	7	13
as fast as.....	5	13
as high as.....	3	4
as large as.....	1	1
as long as.....	1	2
as many as.....	1	1
as old as.....	1	2
as small as.....	3	3
as tall as.....	1	1
as thick as.....	1	1
bigger.....	10	61
biggest.....	9	36
deeper.....	2	10
farther.....	3	12
faster.....	16	88
fastest.....	2	2
higher.....	6	21
highest.....	2	2
larger.....	3	5
largest.....	2	4
later.....	4	10
longer.....	6	12
lower.....	4	7
more.....	16	82
more than.....	11	19
most.....	6	18
nearer.....	12	52
nearest.....	1	2
older.....	8	16
oldest.....	2	4
shorter.....	3	4
slower.....	3	12
smaller.....	4	9
smallest.....	4	7
sooner.....	2	5
taller.....	2	3
tallest.....	2	4
thinner.....	1	2
youngest.....	1	8
Total.....		558
Ordinals:		
first.....	19	132
second.....	6	32
third.....	5	16
fourth.....	1	1
Total.....		181

TABLE I—*Continued*

Item	Number of Books Containing Item	Frequency of Mention
Terms referring to groups:		
army.....	1	3
crowd.....	2	21
dozen.....	3	11
first three.....	1	1
first five.....	1	1
flock.....	2	6
group.....	1	2
herd.....	2	16
next five.....	1	1
next four.....	1	1
next two.....	1	4
pair.....	5	16
twins.....	3	40
two at a time.....	1	1
two more.....	1	1
two other.....	1	1
Total.....		126
Miscellaneous measures:		
barrel.....	1	2
blocks [city].....	5	6
cups [cupful].....	7	13
drop.....	4	8
feet.....	2	2
foot.....	2	4
grains [kernels].....	1	2
handful.....	1	1
inch.....	2	4
loaf [bread].....	2	9
mile.....	3	11
pound.....	4	16
quart.....	1	4
spoon [spoonful].....	2	5
step [stride].....	5	12
yardstick.....	1	1
Total.....		100
Roman numerals:		
I.....	4	25
II.....	4	25
III.....	4	17
IV.....	2	4
V.....	2	2
VI.....	1	1
VII.....	1	1
Total.....		75

are mentioned more frequently than any other topic. This high standing is accounted for by the numerous instances of use of the terms "little" and "big." The word "little," mentioned more often than any other word in this study, has a frequency count of 2,842, while its synonym "small" is mentioned only 102 times. "Big" appears 1,339 times, while the synonym "large" appears 75 times.

The items referring to time are more numerous (representing 27 per cent of all the items) than references to any other arithmetical topic. Those mentioned more than one hundred times each are, in order of frequency: "soon," "now," "day," "winter," "morning," "night," "today," and "summer." About seven references to "winter" appear to every reference to "fall" and "autumn." It is interesting to note that "Saturday" is mentioned six times more often than any other day in the week and that "Wednesday" is not mentioned at all. Each of the clock hours except "nine o'clock" and "twelve o'clock" is mentioned once or more.

Numbers expressed in words are encountered 2,142 times. Numbers "one" to "ten," inclusive (expressed in words), appear 2,082 times, or 97 per cent of the total frequency of all numbers expressed in words.

The Arabic numerals appear 1,886 times. Numbers "1" to "10," inclusive, appear 1,737 times, or 92 per cent of the total frequency of Arabic numerals. The smaller the number, whether expressed in figures or words, the higher the frequency. As the number increases, the frequency decreases. As a rule, the Arabic numerals are found in the check-up or the seat work based on the story, while the numbers expressed in words are encountered within the story.

Ordinals, with the exception of "first," which occurs 132 times, appear rarely in the books analyzed. "Second" is mentioned 32 times; "third," 16 times; and "fourth," but once.

Among the terms indicating measures, only four items—"pound," "cups," "step," and "mile"—occur more than ten times.

Of the Roman numerals only the numerals "I" to "VII," inclusive, are found in the books examined. They are used only to designate chapter or topic divisions, and they are not found in first-grade readers.

SUMMARY

Table II shows that a total of 416 arithmetical terms appear in the thirty books examined. Only 252 of these, or 61 per cent of the total, occur more than five times. The following ten words appear most frequently: "little" (2,842), "big" (1,339), "some" (913), "one" (774), "all" (703), "two" (533), "down" (489), "up" (386), "soon" (376), "now" (368). Only two of the words, "big" and "little," ap-

TABLE II

DISTRIBUTION ACCORDING TO TOPIC OF TERMS AND ITEMS RELATED TO ARITHMETIC OR QUANTITATIVE CONCEPTS USED IN PRIMERS AND FIRST- AND SECOND-GRADE BOOKS OF TEN SERIES OF READERS

TOPIC	DIFFERENT ITEMS		MENTION	
	Number	Per Cent	Frequency	Per Cent
Terms referring to size.....	18	4.3	5,113	22.3
Terms referring to quantity.....	30	7.2	3,619	15.8
Terms referring to time.....	113	27.2	3,104	13.6
Terms referring to location.....	34	8.2	2,760	12.0
Numbers expressed in words.....	19	4.6	2,142	9.4
Arabic numerals.....	42	10.1	1,886	8.2
Miscellaneous arithmetical concepts.....	21	5.0	1,540	6.7
Terms referring to experiences with money	32	7.7	1,071	4.7
Miscellaneous arithmetical terms.....	25	6.0	641	2.8
Terms of comparison.....	39	9.4	558	2.4
Ordinals.....	4	1.0	181	0.8
Terms referring to groups.....	16	3.8	126	0.6
Miscellaneous measures.....	16	3.8	100	0.4
Roman numerals.....	7	1.7	75	0.3
Total.....	416	100.0	22,916	100.0

pear in all the books examined, and these two represent 82 per cent of all the references to size.

Thirty-three items occur in all the second readers. The second-grade readers mention arithmetical terms 4,593 more times than do the first-grade readers. This excess of 4,593 frequencies represents a fifth of all the frequencies of mention of arithmetical terms.

Table II indicates that references to size are most frequently encountered. The references to size number 5,113, more than a fifth of all arithmetical references. Next highest in frequency are the references to quantity and to time. More than half of all the arithmetical

references concern these three topics. These topics appear to have a higher correlation with reading than do other phases of arithmetic. In the books studied 113 different terms referring to time are found, or 27.2 per cent of all arithmetical terms encountered. It appears that in their reading children in the primary grades come in contact with a wider variety of references to time than to any other arithmetical topic.

Ordinals, words indicating groups, miscellaneous measures, and Roman numerals are the items least frequently used. These four topics have a combined total of 2.1 per cent of all arithmetical references.

This study reveals several interesting facts concerning the arithmetical vocabulary found in readers, for example, the extensive use of certain words and the limited use of others that seem to have equal arithmetical value. The names of five months were mentioned only nine times. The readers contribute to the arithmetical vocabulary needed by the child in the primary grades, but the teacher must supplement the information thus supplied by providing opportunities for making number meaningful and by helping the child to become conscious of number.

These questions arise: Should an effort be made to enrich the mathematical vocabulary found in primary readers by increasing the frequency of use of such items as (1) the names of the days in the week, the names of the months, and the seasons; (2) the most commonly used measures, such as the pint, quart, bushel, dozen, inch, foot, yard, blocks, and miles; and (3) synonyms? Will readers that are published in the next five years show a closer integration with the subject of arithmetic? Will they, for instance, associate Christmas with December 25, Thanksgiving with November, Halloween with October? Even the most casual inspection of primary readers reveals the increasing integration of reading and the social studies. Should the amount of integration between reading and arithmetic also be increased?

SELECTED REFERENCES ON PRESCHOOL AND PARENTAL EDUCATION

FLORENCE L. GOODENOUGH
University of Minnesota

This bibliography covers the period from December 1, 1934, to December 1, 1935. As in preceding years the following classes of books and articles have been omitted: (1) foreign-language publications, (2) textbooks and reviews, and (3) popular articles containing little new material. An attempt has been made to list the most important publications of the year in the field covered, but it is probable that some unintentional oversights have occurred.

TECHNICAL AND EXPERIMENTAL STUDIES¹

124. BAYLEY, NANCY. *The Development of Motor Abilities during the First Three Years*. Monographs of the Society for Research in Child Development, No. 1. Washington: National Research Council, 1935. Pp. 26.

A report of the findings from a series of motor tests given to a group of sixty-one infants at monthly intervals during the first fifteen months of life and at three-month intervals thereafter until the age of three years.

125. BRADBURY, DOROTHY E., and SKEELS, ESTHER LEECH. "An Analysis of the Literature Dealing with Nursery Education," *Child Development*, VI (September, 1935), 227-30.

A statistical summary of literature according to sources, year of publication, authors, and topics.

126. BÜHLER, CHARLOTTE. *From Birth to Maturity*. London: Kegan Paul, Trench, Trubner & Co., Ltd. 1935. Pp. xiv+238.

A summary of the observational and experimental studies of human development carried on during the past ten years at the University of Vienna.

127. CUNNINGHAM, BESS V. "Infant IQ Ratings Evaluated after an Interval of Seven Years," *Journal of Experimental Education*, III (December, 1934), 84-87.

Infants first tested at the ages of twelve to twenty-four months with the Kuhlmann-Binet test were retested seven years later with the Standard-Binet test. The correlation between the two series of tests, while positive, was much lower

¹ See also Item 157 in the list of selected references appearing in the April, 1935, number and Item 517 in the November, 1935, number of the *Elementary School Journal*.

than has usually been reported for similar intervals with older subjects or for children of corresponding age when the interval between testings is shorter.

128. CUNNINGHAM, ELIZABETH MECHEM. "Measurement of Attitudes toward Nursery Schools," *Journal of Experimental Education*, III (December, 1934), 88-96.

Describes the construction of a scale for measuring the favorableness or the unfavorableness of attitudes toward the nursery school and reports preliminary findings for certain selected groups. A copy of the scale is appended.

129. DELMAN, LOUIS. "The Order of Participation of Limbs in Responses to Tactual Stimulation of the Newborn Infant," *Child Development*, VI (June, 1935), 98-109.

In the newborn infant arm and arm, or leg and leg, are more likely to move simultaneously than an arm-leg combination.

130. DENNIS, WAYNE. "The Effect of Restricted Practice upon the Reaching, Sitting, and Standing of Two Infants," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVII (September, 1935), 17-32.

Fraternal twins were reared to the age of fourteen months under conditions that markedly restricted their activity. During the experimental period both showed retarded development in the skills mentioned but acquired them readily when normal practice was permitted.

131. GESELL, ARNOLD. "Cinemanalysis: A Method of Behavior Study," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVII (September, 1935), 3-16.

Describes the method of cinema analysis used at the Yale Clinic of Child Development for the study of infant behavior.

132. GOODENOUGH, FLORENCE L. "A Further Study of Speed of Tapping in Early Childhood," *Journal of Applied Psychology*, XIX (June, 1935), 309-19.

The curve of growth for both finger-tapping and stylus-tapping is negatively accelerated. The order of functional development is from large to small muscle groups. Individual differences in speed of tapping tend to be maintained over a one-year interval.

133. GOODENOUGH, FLORENCE L. "The Development of the Reactive Process from Early Childhood to Maturity," *Journal of Experimental Psychology*, XVIII (August, 1935), 431-50.

While both the average duration and the variability of the time required to respond to a sensory stimulus decrease with age, the improvement in variability is approximately three times as rapid as the improvement in speed.

134. GOODENOUGH, FLORENCE L., and SMART, RUSSELL C. "Inter-Relationships of Motor Abilities in Young Children," *Child Development*, VI (June, 1935), 141-53.

Certain changes in the patterns of motor abilities that characterize the preschool years are distinguished by means of a factor analysis.

135. JOHNSON, MARGUERITE WILKER. "The Influence of Verbal Directions on Behavior," *Child Development*, VI (September, 1935), 196-204.

Positive, unhurried, specific, and encouraging instructions are more effective than negative, hurried, general, and discouraging directions.

136. KASATKIN, N. I., and LEVIKOVA, A. M. "On the Development of Early Conditioned Reflexes and Differentiations of Auditory Stimuli in Infants," *Journal of Experimental Psychology*, XVIII (February, 1935), 1-19.

Contrary to the findings of certain other investigators, who report that conditioned reflexes cannot be established before the age of six months, the authors were able to evoke a conditioned sucking reaction to the sound of an organ pipe in each of three subjects during the first half of the second month.

137. KELTING, LILLIAN SOPHIA. "An Investigation of the Feeding, Sleeping, Crying, and Social Behavior of Infants," *Journal of Experimental Education*, III (December, 1934), 97-106.

The specified forms of behavior in a group of six normal infants were studied over a period of several months by means of a series of observational samples.

138. KOCH, HELEN LOIS. "A Multiple-Factor Analysis of Certain Measures of Activeness in Nursery School Children," *Pedagogical Seminary and Journal of Genetic Psychology*, XLV (December, 1934), 482-87.

A multiple-factor analysis of nine different measures of activeness made according to the Thurstone technique suggests that three common factors, tentatively described as (1) strength or maturity, (2) nervousness or emotionality, and (3) spontaneous activeness or aggressiveness, will account for most of the variance.

139. KOCH, HELEN LOIS. "An Analysis of Certain Forms of So-called 'Nervous Habits' in Young Children," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVI (March, 1935), 139-70.

A study by the time-sampling method of various mannerisms often regarded as manifestations of "nervousness," such as excessive blinking and picking at nose or fingers, yielded only low correlations with other factors frequently thought to bear either a causative or symptomatic relation to "nervousness" as the term is popularly defined. This finding suggests that mannerisms in children cannot be traced to a single factor but that intrinsic and extrinsic conditions are likely to be operative.

140. MCGEOCH, GRACE O. "The Age Factor in Reminiscence: A Comparative Study of Preschool Children and College Students," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVII (September, 1935), 98-120.

Although preschool children learned and recalled only about half as many of a series of familiar objects presented visually as did a group of college students

under the same experimental conditions, there was little difference in the percentage of the number originally learned that could be recalled after an interval of twenty-four hours. Reminiscence (later recall of objects not mentioned in immediate recall) appeared to be unrelated to age.

141. MCGRAW, MYRTLE B. *Growth—A Study of Johnny and Jimmy*. New York: D. Appleton-Century Co., Inc., 1935. Pp. xxii+320.

The development and training of the famous twins is made the setting for a more general discussion of the principles of human growth.

142. MALLAY, HELENA. "The Latent Memory Span of the Preschool Child," *Child Development*, VI (June, 1935), 110-19.

The length of time after which children are able to reproduce a simple manual task, such as the opening of an easy puzzle box, after a single demonstration increases rapidly with age during the preschool period. Verbal directions during the demonstration facilitate memory.

143. MARKEY, FRANCES V. *Imaginative Behavior of Preschool Children*, Child Development Monographs, No. 18. New York: Teachers College, Columbia University, 1935. Pp. xvi+140.

By means of a modified diary technique, the imaginative behavior of fifty-four children between the ages of twenty-two and fifty months was studied. Additional data for somewhat larger groups in two controlled situations (playing house and playing with blocks) were also secured.

144. MAYER, BARBARA A. "Negativistic Reactions of Preschool Children on the New Revision of the Stanford-Binet," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVI (June, 1935), 311-34.

Negativism in the test situation reaches a peak at three years, after which it declines. On the whole, boys show more negativistic reactions than do girls. Tests requiring verbal responses elicit more negativistic reactions than do those involving the use of objects.

145. MELCHER, RUTH TAYLOR. "Children's Motor Learning with and without Vision," *Child Development*, V (December, 1934), 315-50.

By means of a paired-group experiment in learning to trace a slot maze, it was found that visual guidance alone is decidedly more effective than manual guidance either with or without vision. Manual guidance thus appears to be an actual hindrance to learning a task of this kind. The statement sometimes made that young children are mainly dependent on tactual-kinesthetic cues, while the adult has shifted to visual dominance, is not supported by this study.

146. MIRENVA, A. N. "Psychomotor Education and the General Development of Preschool Children: Experiments with Twin Controls," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVI (June, 1935), 433-53.

Training has more effect on the development of complex psychomotor functions than it has on the simpler skills. The twins who were given special training also showed a decided gain in activity, independence, and self-discipline.

147. PACKER, GARRAH M. "Ninety-seven Hundred Parents' Questions concerning Child Development," *Journal of Experimental Education*, III (December, 1934), 117-53.

A total of 9,691 questions asked by 3,211 parents was subdivided according to field of inquiry, age of child to whom the question related, education and residence of parents, etc. Questions dealing with family relations exceeded all others in frequency. Educated parents asked more questions than those with limited schooling.

148. PECK, LEIGH, and WALLING, ROSEMARY. "A Preliminary Study of the Eidetic Imagery of Preschool Children," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVII (September, 1935), 168-92.

Fifty per cent of a group of twenty nursery-school children showed some degree of eidetic imagery. Several problems for further study are suggested.

149. PRATT, KARL C. "Generalization and Specificity of the Plantar Response in Newborn Infants. The Reflexogenous Zone: II. Segmental Patterning of Responses; III. The Effects of the Physiological State upon Sensitivity, Segmental Participation, and Segmental Patterning," *Pedagogical Seminary and Journal of Genetic Psychology*, XLV (September and December, 1934), 22-37, 371-89.

The second and third articles in a series (see Item 106 in the list of selected references in the March, 1935, number of the *Elementary School Journal*). The second article shows that there is a great variety of segmental patterns of planar responses. The data in the third article indicate that, when wet or awake, infants show a greater variety of patterns of responses to plantar stimulation than when asleep and dry.

150. PYLES, M. K., STOLZ, H. R., and MACFARLANE, J. W. "The Accuracy of Mothers' Reports on Birth and Developmental Data," *Child Development*, VI (September, 1935), 165-76.

Reports by mothers on several items relating to the birth and early developmental history of their children obtained when the children were twenty-one months of age were checked against primary records from such sources as hospitals, physicians' case records, and reports of visiting nurses. On the whole, a close agreement was found, but there was a rather consistent tendency to overestimate certain items and to underestimate others.

151. ROOS, MARY M. "A Study of Some Factors Entering into the Determination of Handedness," *Child Development*, VI (June, 1935), 91-97.

On the basis of simple tests administered by parents, 81.7 per cent of 486 infants between the ages of six months and two years were classified as right-handed. The relation of handedness to such factors as birth weight, family history of sinistrality or dextrality, basal metabolism of mother during pregnancy, and type of birth presentation were investigated.

152. SMITH, MADORAH E. "A Study of Some Factors Influencing the Development of the Sentence in Preschool Children," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVI (March, 1935), 182-212.

Mental age is more closely related to maturity of language usage than is chronological age. Association with adults tends to improve speech more than does association with other children. Children of the more favored social classes are more precocious in speech development than those of the lower classes.

153. THRUM, MARTHA E. "The Development of Concepts of Magnitude," *Child Development*, VI (June, 1935), 120-40.

Although children of preschool age readily learn to distinguish the extremes (largest and smallest) of a group of similar forms of different sizes, they have great difficulty in learning to select the middle-sized one. A two-directional comparison seems to be beyond the ability of the average child before the age of five years.

154. VOEGELIN, CH. F., and ADAMS, SIDNEY. "A Phonetic Study of Young Children's Speech," *Journal of Experimental Education*, III (December, 1934), 107-16.

By means of a picture test planned to elicit most of the sounds common to English usage, the relative difficulty of pronunciation of various speech sounds for a group of nursery-school children was studied.

155. WARING, ETHEL B. *Ten-Year Report of Studies in Child Development and Parent Education*. Contribution from Studies in Home Economics, Ithaca, New York: Agricultural Experiment Station, Cornell University, 1935. Pp. 70.

Abstracts of sixty-seven unpublished studies, many of which are still in progress.

156. WASHBURN, RUTH W., and HILGARD, JOSEPHINE R. "A Quantitative Clinical Method of Recording the Social Behavior of Young Children," *Pedagogical Seminary and Journal of Genetic Psychology*, XLV (December, 1934), 390-405.

By the use of the Becker time-marker, more precise quantitative data on the social activities of children can be obtained than is possible by the use of other observational methods, such as the time sample.

157. WELLMAN, BETH L. "Growth in Intelligence under Differing School Environments," *Journal of Experimental Education*, III (December, 1934), 59-83.

Presents data to show that, while the average intelligence quotients of children enrolled in the Preschool and the University Elementary School of the University of Iowa show a fairly marked increase during the period of enrolment, this tendency to gain is not maintained after transfer to other schools.

NON-TECHNICAL BOOKS AND ARTICLES PRIMARILY FOR PARENTS,
TEACHERS, AND WORKERS IN THE FIELD OF PARENT
EDUCATION¹

158. BAIN, WINIFRED E. *Parents Look at Modern Education*. New York: D. Appleton-Century Co., Inc., 1935. Pp. xiv+330.
An attempt to show parents what the modern school, at its best, is like. Includes a chapter on the nursery school.
159. BARUCH, DOROTHY W. "The Value of Nursery School Experience for Teachers in Other Fields," *Childhood Education*, XI (January, 1935), 175-78.
The attitudes and habits inculcated in the modern nursery school are valuable as preparation for teaching in other fields because they stress such points as systematic observation, self-criticism, and the experimental approach to problems.
160. BLATZ, WILLIAM E., MILLICHAMP, DOROTHY, and FLETCHER, MARGARET. *Nursery Education*. New York: William Morrow & Co., 1935. Pp. xvi+366.
Describes the schedule of activities and the methods of teaching employed in the nursery school of the St. George's School for Child Study with reference to underlying theories of child training.
161. COIT, LOTTIE ELLSWORTH. "Music in the Nursery School," *Childhood Education*, XI (December, 1934), 125-28.
An account of the successful use of music as an aid to general nursery-school routine and of the development of a nursery-school orchestra.
162. DAVIS, MARY DABNEY. "Young Children in Western European Countries," *Childhood Education*, XI (January, 1935), 152-58.
A brief description of provisions for the education and training of preschool children in England, Belgium, Czechoslovakia, Italy, Hungary, Poland, and Russia.
163. FARQUHAR, S. EDGAR (Editor). *Childcraft*. Chicago: W. F. Quarrie & Co., 1934 and 1935. Six volumes with supplement.
The six volumes making up this new series of books for the home are divided into two groups, one for children and one for parents. The first three volumes comprise a graded series of selections from children's literature. The supplementary volume on *Artcraft for Children*, which is in special format, should also be included here. The three volumes for parents bear the following titles: *The Child at Home*, *The Child at School*, and *The Child at Play*. Each of these is made up of several chapters by different specialists in the field in question.

¹ See also Items 143 and 144 in the list of selected references appearing in the April, 1935, number of the *Elementary School Journal*.

164. FOREST, ILSE. *The School for the Child from Two to Eight*. Boston: Ginn & Co., 1935. Pp. x+286.

Devoted for the most part to a discussion of the aims and methods of activity curriculums for young children.

165. HOSTLER, AMY. "Establishing Nursery Schools in Puerto Rico," *Childhood Education*, XI (December, 1934), 131-32.

Describes the establishment of the first four nursery-school units for indigent children in Puerto Rico.

166. KITCHEN, JEAN MCPHERSON. "When Babies Go to School," *Parents' Magazine*, X (March, 1935), 16, 17, 46, 47.

Describes a co-operative nursery school organized and managed by parents and cites sources of information from which more detailed suggestions can be obtained.

167. POPPLETON, MARJORIE, and BLATZ, WILLIAM E. *We Go to Nursery School*. New York: William Morrow & Co., 1935. Pp. 64.

A series of photographs illustrating the course of a child's day at nursery school.

168. STODDARD, GEORGE D. "Emergency Nursery Schools on Trial," *Childhood Education*, XI (March, 1935), 259-61.

A discussion of the pros and cons of nursery-school training for children.

Educational Writings

REVIEWS AND BOOK NOTES

An attractive exposition of elementary education in France.—There are some books which it is a duty to bring to the attention of students and scholars; there are occasionally a few books for which it is a pleasure to perform the same task. To direct the attention of American readers to the two volumes here discussed¹ is both a duty and a pleasure. I know of no two other volumes in the field of educational literature which have been so attractively produced. To those who are familiar with the usual run of French books—produced on poor paper, with indifferent print, and in temporary bindings—these two volumes will come as a surprise. In every way they do honor to the art of the printer, the binder, and the illustrator. More, the two volumes do honor to the study of education and its history. Here is a production which, unlike most books in education, by its very form dignifies the subject and should make its appeal to the lay reader and stand the scrutiny of the most meticulous specialist. The beautiful photogravure reproductions in themselves present a vivid story of the development of French elementary education from its earliest beginnings down to the present.

Those who are inclined to dismiss French education as too highly centralized and, accordingly, inflexible will find an interpretation of the French system in the light of its history and its groping toward an expression of the democratic ideal in education in terms of those aims of intellectual training which are characteristically French. The full title of the work is *L'École primaire en France: Ses origines—ses différents aspects au cours des siècles—ses luttes—ses victoires—sa mission dans la démocratie*, and the introductory half-title is *L'École primaire en France: Histoire pittoresque, documentaire, anecdotique de l'école, des maîtres, des écoliers depuis les origines jusqu'à nos jours*. The first volume deals with the history of the primary school from the Greek and the Roman periods, which contributed the nomenclature of education to France, down to the beginnings of the Third Republic. Here the reader will find the beginnings of those ideals which still animate French education—the rationalism of Descartes and the concept of the school as a democratic institution, the lay school, the school of citizenship, and the common school—already outlined by the great theorists of

¹ Alexis Léaud and Emile Glay, *L'École primaire en France: Ses origines—ses différents aspects au cours des siècles—ses luttes—ses victoires—sa mission dans la démocratie*. Vol. I, pp. 314; Vol. II, pp. 314. Paris: La Cité Française, 1934.

the French Revolution. The second volume takes up again the republican ideal and its realization through the efforts of Paul Bert and Jules Ferry. The rest of this volume is devoted to a detailed exposition of the courses of study and methods of instruction, special schools for defective children, the rise and progress of higher elementary education, and various types of welfare activities which have grown up around the schools. The reader will thus find a complete account of elementary education in France from its earliest dawn to the hopes of tomorrow, of its theory and practice, and of the great personalities who have made it what it is. The broad sweep of the treatment is amply indicated by the inclusion of appendixes, that in the first volume dealing with old school textbooks and games and toys of children of other times and that in the second volume presenting an account of the school in literature and art; the child and pupil in classical, romantic, and modern literatures; the school in painting and sculpture; and the elementary-school teacher and culture.

Here at last is a contribution which will absolve the study of the history of education from the charge that it is dull and dry. As M. Herriot says in his Preface, these volumes are unique in presenting a comprehensive view of the development of elementary education and represent "an attempt to place education among the large achievements of history and the essential facts of philosophy which every educator and every cultivated man should possess."

The United States should be celebrating at about this time the hundredth anniversary of the establishment of universal compulsory education. The two volumes under review constitute a challenge which ought to be met. A publication of the same type would do more to enlist public interest in education than any amount of other publicity devices. For the aesthetic appeal of *L'École primaire en France*, in the opinion of one who has succumbed to it, is far greater than any number of tables of facts and graphs, and the aesthetic appeal is enriched by the scholarly account of the text. Certainly the two volumes should be in every educational library as a model of what enthusiasm for, and faith in, education can achieve. For the student of education the two volumes fill a long-felt gap.

I. L. KANDEL

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The civic education of youth.—The most recent publication¹ by Howard C. Hill, pre-eminent author of textbooks in civics, is a single volume well adapted for a year's course in junior high school social science. The book includes four major divisions: Part I, "Living Together"; Part II, "The Citizen and His Governments"; Part III, "The Business of Living"; and Part IV, "Planning for the Future." These divisions are allotted, respectively, 130 pages, 161 pages, 131 pages, and 175 pages. However, the re-occurring emphasis throughout the

¹ Howard C. Hill, *The Life and Work of the Citizen*. Boston: Ginn & Co., 1935. Pp. xviii+638. \$1.52.

book on the functional aspects of government insures greater emphasis on this phase of the discussion than is suggested by the inclusive pages devoted to Part II.

Each of the major divisions is introduced with a foreword clearly indicating the problems to be treated. The chapters are divided into sections at the close of which are found questions and problems calling for interpretations and applications of the content. At the end of each chapter are a summary and lists of varied and practical suggested activities, or "Things To Do." The problem of supplementary reading is handled effectively. Each chapter refers specifically to certain selections in the classroom library of fourteen titles and also suggests a number of books appropriate for home reading.

That much of the content in *The Life and Work of the Citizen* has appeared in earlier textbooks published by the author in no way detracts from the present volume. In nearly all instances, the examples, applications, etc., tend to bring the discussion up to date. The book is interestingly written in language within the grasp of ninth-grade pupils. The illustrations have been happily selected, from the viewpoints of probable appeal to youth and appropriateness of subject. The type is unusually readable.

By way of general criticism the reviewer ventures to say that the tone of the book is too optimistic and therefore unrealistic. On page 63 pupils are advised to forego blind-alley jobs and to seek education in order to fit themselves better for preferred positions. In reality, much of general education has limited vocational utility and probably should be justified chiefly on cultural grounds. Many pupils drop out of school because they do not enjoy academic training or cannot "pass" such work. In the smaller high schools vocational training can receive but slight emphasis because of attendant expense. Even if pupils remain in school, their future is uncertain. During the past few years a high percentage of college graduates have been unable to find employment in the fields of their specialization, and the incomes of those who found employment have been discouragingly small.

On page 414 the author includes a sentence pointing out a fundamental weakness in our present economic structure: "When either employees or employers make the production of goods cost more than is necessary, they not only injure the public, but in the long run they also injure themselves." This statement suggests the importance of a comprehensive discussion of the problem of distribution, which is not included in the book.

On page 345 the pupil is told that workers should save in order to accumulate capital which can be invested to aid further production and bring them increased income. Although this advice is sound economic doctrine, many pupils will doubtless raise questions about under-consumption, present inability to find profitable investment for surplus capital, governmental restrictions on production, etc.

In conclusion, the following statements, which are merely listed, may need

modification: "Why is a regiment of soldiers able to rout a mob, equally well armed, of ten times its number?" (P. 13.) "... waterways . . . from the Gulf of Mexico . . . to Lake Michigan, with branches to . . . Omaha and Minneapolis, deep enough for seagoing ships . . ." (p. 373). "... with application to duty he [a United States army private] may within a few years rise to the rank of master sergeant at \$157.50 a month . . ." (p. 520).

UNIVERSITY OF IOWA

HOWARD R. ANDERSON

What children see at the movies.—The motion picture has finally become a problem for respectable, scientific study. When Weber, James, Freeman, and F. D. McClusky undertook their early studies more than a decade ago, there was still considerable doubt among the scholastic brethren concerning the academic propriety of investigating the movics. But times have changed. The films impress us with an avalanche of influence. Youngsters and oldsters attend them in hordes. If, therefore, we are serious about the problem of education, we can no longer ignore the enormous potential of the motion picture. Accordingly, the committee on educational research of the Payne Fund at the request of the Motion Picture Research Council undertook a series of twelve studies dealing with the influence of the motion picture on youth.

One of the studies included in the volume under review¹ deals with the attendance of children at motion pictures. The data for this investigation were secured from approximately 55,000 children by means of questionnaires, interviews, and direct observation. The author employed many techniques to check the validity and the reliability of the data. In the judgment of the reviewer, these techniques were ample for the purposes of the study. The general outcome of the investigation indicates that about a third of the motion-picture audiences throughout the United States are composed of young people under the age of twenty-one. The results also show that three-fourths of the attendance is concentrated in the week end; that boys attend more frequently than girls; that in only about 16 per cent of the cases do children attend with either one or both parents; and that, with the exception of very young children who live in remote areas not served by motion pictures, practically all children everywhere are directly exposed to motion pictures shown at commercial theaters.

The other study reported in this volume presents an analysis of the content of motion pictures. The analysis was conducted at three different levels of intensity. First, five hundred films from each of the years, 1920, 1925, and 1930, or a total of fifteen hundred features, were analyzed and classified according to their major themes. Second, 115 of these films were analyzed more intensively. Third, 40 of this latter group were scrutinized according to a special technique which constitutes one of the major contributions of the study. Some indication

¹ Edgar Dale, *The Content of Motion Pictures*, pp. xvi+234; combined with *Children's Attendance at Motion Pictures*, pp. x+82. Payne Fund Studies of Motion Pictures and Youth. New York: Macmillan Co., 1935. \$2.50.

of the subject matter of the report may be indicated by the following list of titles of the chapters: "The Nature of the Study," "The General Themes of 1,500 Motion Pictures," "Locales and Settings of Motion Pictures," "What Are the Movie Characters Like?" "An Analysis of the Clothing Worn by Leading Characters," "Circumstances of Meeting and Love-making," "Sex, Marriage, and Romantic Love," "Crime in the Movies," "Vulgarity in the Movies," "Recreations, Liquor, and Tobacco in the Movies," "The Goals Sought by the Leading Characters," "The Content of Newsreels," "Summary."

On page 229 of the report the author has performed an excellent service for the reader in summarizing the major outcomes of the investigation in a "Balance Sheet for Motion-Picture Content." Space is not available for reproducing this summary in full, but certain outstanding items deserve mention. The author reports that motion pictures have given much attention to the life of the upper economic stratum and correspondingly little attention to the life of the middle and lower economic strata. They have dealt mainly with metropolitan areas and very little with life in small-town and rural areas. The films have concentrated on the problems of the unmarried and young and have neglected the equally important problems of the middle-aged and old. They have given excessive emphasis to questions of love, sex, and crime and have overlooked other questions of everyday life. They present themes involving primarily the professional and commercial world and rarely present themes involving the industrial and agricultural world. They portray characters pursuing individual rather than social objectives. They play up physical beauty and overlook beauty of character. Very significantly, the newsreel is heavily loaded with sporting events and activities of the army and navy and neglects scenic splendors, exploration, adventure, and world peace. The ratio of peace to war items in the newsreels is about one to twelve, and on the prohibition issue the "wet" outnumber the "dry" items by about four to one.

The investigations were conducted on an extensive scale with the co-operation of a large staff of competent assistants. The data are presented in seventy-six tables and eight charts. The report reveals a cautious use of adequate techniques described with detail sufficient for a repetition of the studies. The report contained in this volume solves no problems, but it presents valuable data which greatly aid in the understanding of problems related to the motion picture. In its field it is probably the most extensive and important contribution that has thus far appeared. As such it merits the attention of all persons interested in the vital problem of the influence of the motion picture on youth.

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UNIVERSITY OF MICHIGAN

Arithmetic by application.—A new series of arithmetics¹ has appeared which apparently is based on the assumption that the best way to teach functional

¹ Robert L. Jones and Harry G. Wheat, *Jones-Wheat Arithmetics*: Book I, pp. viii+342, \$0.64; Book II, pp. viii+366, \$0.64; Book III, pp. viii+408, \$0.72. Boston: D. C. Heath & Co., 1935.

arithmetic to children is to give them an abundance of practice in solving what are conventionally known as "verbal problems." The junior editor's well-known interest in the problem aspect of arithmetic has led him to produce, in collaboration with a superintendent of schools, a series of textbooks which contains more verbal problems than any series, with possibly one exception, which this reviewer has ever seen.

The series is comprised of the conventional three volumes. The first book contains the instructional materials intended for use in teaching the four fundamental operations with integers, together with some work in measurement. The preliminary work in building number concepts is not sufficient in quantity, but the treatment is probably not intended to be exhaustive. In subtraction the "take-away-borrowing" method is taught. While the multiplication tables do not appear as such, in general the combinations are taught in serial order. The "apparent-quotient rule" is used for all divisors of more than one digit.

In certain details the first book shows evidence of careless workmanship. Higher-decade addition combinations are presented, but not all those needed are taught, while some are presented which would probably be used only in exceptionally long columns. In the matter of distribution of practice there is much to be desired. Analysis of the practice on two pages of multiplication examples shows that 6×5 is practiced six times, while 6×6 is practiced twenty-five times. Many details which properly belong in a complete exposition of an arithmetical process are omitted, and some of those included are badly arranged.

Beginning as soon as he starts arithmetic, the pupil is given much opportunity to apply his knowledge of the subject in verbal problems. The problems in the series are almost entirely of the isolated type but seem to the reviewer to be interesting. They deal with situations which are comprehensible to the children working the problems. Even in Book I there is practice in making up problems and in identifying incomplete problems.

Book II contains the material intended to facilitate the teaching of fractions, decimals, percentage, the simple applications of percentage, and the simple aspects of the measurement of surfaces and volumes. The pupil is given many additional opportunities to apply the skills with whole numbers to problem situations. The emphasis on verbal problems results in the inclusion of 638 verbal problems in the first half of Book II, presumably the section covered by Grade V.

While little space is devoted to the study of fractions in the first volume, this topic occupies the major share of the space in the first half of the second book. In addition, the topic of decimals is completed in the first half. The authors have attempted to reduce the confusion which grows up in the pupil's mind in his study of the three cases of percentage by setting up three parallel cases in the study of fractions and again in the study of decimals. The applications of percentage in Book II are limited to interest, commission, and discount.

In the section on fractions, the fraction concept is carefully developed before the processes are presented. An attempt is made to rationalize the operations,

and these rationalizations are on the whole educationally profitable, with the possible exception of the explanation of division. The reviewer wonders whether the fraction skills are given enough drill at the time of first learning to fix them before the new topics are taken up.

In the organization of Book III the authors have apparently made an effort to meet the needs of those who believe in an older type of subject matter. Here are found such topics as import duties, cordwood, papering, plastering, concrete construction, annual interest, partitive proportion, foreign money, longitude and time, cube root, the G.C.D., and the L.C.M. The reader will recognize each of these topics as the object of some attention on the part of the "reductionists." On the other hand, the amount of work in informal geometry falls far short of the amount considered important by most experts in the field today. The work in algebra covers simple equations.

This book also exhibits some evidence of carelessness. The statement is made that "the capital stock [of a bank] is held as a guaranty that money received as deposits will be paid when demanded" (p. 288), and we learn that "the rule of Pythagoras enables us to find the length of any side of a triangle when the other two sides are known" (p. 362). The map accompanying the topic on standard time is obsolete.

The third book of the series is noteworthy because of the completeness and adequacy of its informational material. Here are found long and carefully worked out discussions of certain topics of great social importance. Under the topic of insurance more space is given to the presentation of informational material than to problems. There are good discussions of banks and banking practice, corporation organization, taxation, and other topics. In addition, these topics, like those in the earlier volumes, include an abundance of verbal problems which are interesting, significant, and educative.

H. E. BENZ

OHIO UNIVERSITY, ATHENS, OHIO

In the interests of young readers.—Thorndike's volumes of children's stories¹ are the result of patient research in the field of elementary vocabulary. The six volumes are not new in material, but they are new in that they serve the function of adapting worth-while stories to the word needs of young readers. *Andersen's Fairy Tales*, *Black Beauty*, *Heidi*, *The Little Lame Prince*, *Water Babies*, *Pinocchio*, and *A Wonder Book* were chosen for the initial series because

¹ The Thorndike Library: *Andersen's Fairy Tales* by Hans Christian Andersen, pp. viii+224; *Black Beauty* by Anna Sewell, pp. x+280; *Heidi* by Johanna Spyri, pp. viii+360; *The Little Lame Prince* by Miss Mulock and *The Water Babies* by Charles Kingsley, pp. 120 and 160; *Pinocchio* by Carlo Collodi, pp. xii+232; *A Wonder Book* by Nathaniel Hawthorne, pp. 226. Edited to fit the interests of young readers by Edward L. Thorndike. New York: D. Appleton-Century Co., Inc., 1935. \$0.80 each.

of their quality and the enduring interest that they have always held for children of nine to ten years of age.

His study having proved that a prime obstacle to rapid reading and comprehension is word difficulty, Thorndike proceeded to meet an obvious need by original method. By eliminating troublesome words from these books, by limiting the vocabulary to the basic list of twenty-five hundred words occurring most frequently in literature, and by simplifying occasionally the sentence structure employed in the original text, the author has made it possible for children whose reading ability is below average to gain practice and self-confidence and for those who read easily to increase their repository of literary experience with a maximum of pleasure and understanding.

These examples taken from Hawthorne's *A Wonder Book* will illustrate what has been done.

"Well, children," inquired Eustace, who was very fond of eliciting a definite opinion from his auditors . . ."

The Thorndike revision: "Well, children," inquired Eustace, who was very fond of drawing an opinion from his hearers . . ."

"There were adamantine icicles glittering around all its little cascades . . ."

The Thorndike revision: "Long points of ice glittered around all its little falls."

It is obvious that removing distractions within the reading itself increases enjoyment and stimulates further interest. The ever-present questions of why children do not read more of the better books and why they do not comprehend simple stories have apparently stimulated the editor in the preparation of these books.

Light-colored bindings, differentiated slightly for convenience, a comfortable small size, print that is easy to read—these are elements of a good job of publishing. The illustrations, with some exceptions, are somewhat disappointing to the reviewer. Pictures should add to the magic of a child's book, certainly not detract from it. However, most books for children seem to suffer from mediocrity of illustrations.

Inasmuch as these books represent a scientific approach to a recognized problem and are prognostic of similar work in the field, they should be accepted as a significant contribution to the educational needs of children. The author's extreme care in following his own formula can hardly be called a fault. These volumes constitute a valuable series. The reception of "The Thorndike Library" by teachers and by children will be a matter of great interest to all educators.

IRMGARD GROSSMANN

STEPHENS COLLEGE, COLUMBIA, MISSOURI

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

AVERILL, LAWRENCE AUGUSTUS. *Adolescence: A Study in the Teen Years.*

Boston: Houghton Mifflin Co., 1936. Pp. vi+496. \$2.25.

DODGE, ARTHUR F. *Occupational Ability Patterns.* Teachers College Contribu-

- tions to Education, No. 658. New York: Teachers College, Columbia University, 1935. Pp. vi+98. \$1.50.
- FARGO, LUCILE F. *Preparation for School Library Work*. Columbia University Studies in Library Service, III. New York: Columbia University Press, 1936. Pp. viii+190. \$3.00.
- HARTOG, SIR PHILIP, and RHODES, E. C. *An Examination of Examinations: Being a Summary of Investigations on the Comparison of Marks Allotted to Examination Scripts by Independent Examiners and Boards of Examiners, together with a Section on a Viva Voce Examination*. International Institute Examinations Enquiry. London: Macmillan & Co., Ltd., 1935. Pp. 82.
- HIGGINS, SISTER M. XAVIER. *Reducing the Variability of Supervisors' Judgments: An Experimental Study*. Johns Hopkins University Studies in Education, No. 23. Baltimore: Johns Hopkins Press, 1936. Pp. x+70. \$1.15.
- HOLY, RUSSELL A. *The Relationship of City Planning to School Plant Planning*. Teachers College Contributions to Education, No. 662. New York: Teachers College, Columbia University, 1935. Pp. viii+136. \$1.50.
- JERSILD, ARTHUR T., and BIENSTOCK, SYLVIA F. *Development of Rhythm in Young Children*. Child Development Monographs, No. 22. New York: Teachers College, Columbia University, 1935. Pp. vi+98.
- JERSILD, ARTHUR T., and HOLMES, FRANCES B. *Children's Fears*. Child Development Monographs, No. 20. New York: Teachers College, Columbia University, 1935. Pp. xvi+356.
- JERSILD, ARTHUR T., and MARKEY, FRANCES V. *Conflicts between Preschool Children*. Child Development Monographs, No. 21. New York: Teachers College, Columbia University, 1935. Pp. x+182.
- JONES, GALEN. *Extra-curricular Activities in Relation to the Curriculum*. Teachers College Contributions to Education, No. 667. New York: Teachers College, Columbia University, 1935. Pp. vi+100. \$1.50.
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- MARKEY, FRANCES V. *Imaginative Behavior of Preschool Children*. Child Development Monographs, No. 18. New York: Teachers College, Columbia University, 1935. Pp. xvi+140.
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- QUAYLE, MARGARET SIDNEY. *A Study of Some Aspects of Satisfaction in the Vocation of Stenography*. Teachers College Contributions to Education, No. 659. New York: Teachers College, Columbia University, 1935. Pp. vi+122. \$1.50.
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- TILDSLEY, JOHN L. *The Mounting Waste of the American Secondary School*. The Inglis Lecture, 1936. Cambridge, Massachusetts: Harvard University Press, 1936. Pp. 92. \$1.50.
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- CORRIS, ANNA DOROTHEA. *The New Path to Reading: My Second Primer*, pp. vi+126, \$0.52; *My Next Book One*, pp. viii+172, \$0.64. Boston: Ginn & Co., 1936 (revised).
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- Graded List of Books for Children*. Compiled by a Joint Committee of the American Library Association, National Education Association, and National Council of Teachers of English. Chicago: American Library Association, 1936. Pp. x+162. \$1.75.
- Pleasure Reading for Boys and Girls*. Department of Education Bulletin No. 17. Sacramento, California: State Department of Education, 1935. Pp. x+100.
- Story Biographies*. Edited by Harriet L. McClay and Helen Judson. New York: Henry Holt & Co., 1936. Pp. viii+696. \$1.44.
- THOMAS, HAROLD P., and PARTCH, CLARENCE E. *Work Guide for the Study of Occupations*. Boston: Houghton Mifflin Co., 1936. Pp. iv+156. \$0.60.
- TRYON, ROLLA M., LINGLEY, CHARLES R., and MOREHOUSE, FRANCES. *The American People and Nation*. Boston: Ginn & Co., 1936 (revised). Pp. xviii+684+xliv. \$1.72.
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- DALE, EDGAR, "Teaching Motion Picture Appreciation: An Account of a Series of Demonstrations in Forty-five Selected Pennsylvania Cities." Columbus, Ohio: Bureau of Educational Research, Ohio State University, 1936. Pp. 22 (mimeographed).
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- Bulletin No. 5, 1935—*Bibliography of Research Studies in Education 1933-1934* prepared by Ruth A. Gray. Pp. xiv+328.
- Vocational Education Bulletin No. 128, Trade and Industrial Series, No. 35 (1935, revised)—*Bibliography on Foreman Improvement: A Selected and Annotated List of References, Including Books, Pamphlets, and Magazine Articles.* Pp. viii+34.

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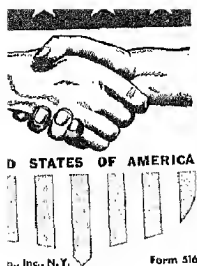
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Educational News and Editorial Comment

IN DEFENSE OF THE HISTORY OF EDUCATION

One of the unfortunate developments in American education in recent years has been the neglect of the history of education as a professional subject. The reasons for this neglect are not difficult to discover. In the first place, for a great many years the students of the history of education confined their attention almost exclusively to the history of educational theory and philosophy, overlooking other vital phases of the subject. This extreme emphasis on philosophy is perhaps the chief reason why the history of education has fallen from its high estate. But there are other reasons. Soon after the opening of the present century emphasis on the need of scientific investigation of educational problems caused most young workers in the field to devote themselves to the mastery and the application of statistical and experimental procedures. To be sure, here and there a young person of ability was attracted to the history of education, but such was seldom the case. Moreover, history is an exacting mistress. To accomplish anything of importance requires years of careful, painstaking investigation. Rewards for scholarship are necessarily delayed; other lines of investigation offer quicker returns. The

fact is that young people will not master the methods of historical research and devote themselves to years of scholarly investigation unless they are made to feel that the work which they are doing is worth while and that it will be rewarded.

Educators of this country can ill afford to continue their neglect of the past. There can never be a Bible without a book of Genesis. No professional group can afford to ignore the lessons of its experience. No generation of teachers can be sufficient unto itself. Already there is evidence that we are paying the penalty of our ignorance of the past. Much of the conflict and confusion that characterizes American education today is directly chargeable to our chronological provincialism.

In a recent issue of the *Social Studies* Professor Edgar B. Wesley, of the University of Minnesota, discusses some of the evidence and consequences of the general neglect of the history of teaching. We quote Professor Wesley:

There is one profession that has slight curiosity about its past, that acts as though the law of continuity were nonexistent, that regards itself as created anew with each generation. Each practitioner of this art is fond of discovering all the fundamentals for himself, of setting at naught the skills, techniques, and methods of his predecessors, of relying wholly upon his own experience. Like quacks of all professions, he learns his art only by the practice of it. I refer, of course, to the teacher. Perhaps this sounds like a severe indictment of the profession. Allow me to cite four types of evidence to prove that the profession as a whole is scornful of its past and pursues a course of assumed self-sufficiency.

In the first place, the widespread practice of coining new words and phrases and of infusing new meanings into old terms is symptomatic of a disregard of the past. The growth of a technical vocabulary is a phenomenon of frequent occurrence, and many terms used in education belong to this group, but others are apparently designed to promote particular viewpoints, to persuade rather than clarify, to color rather than describe, to give the impression of newness rather than designate well-known ideas. These new words tend to cluster about certain areas, such as the form of the organization of material, pupil activity, the curriculum, and the teacher-pupil relationship. In the organization of material, for example, we have subjects, correlation, concentration, articulation, integration, fusion, topic, problem, project, and unification. And single words are sometimes inadequate, and the coiner of the new terminology gives us such phrases as core curriculum, real-life situations, partial fusion, complete integration, problem-project, and systematic correlation.

Some recent educators have discovered the fact that the schools were designed for the pupils. This epoch-making discovery has led to the invention of

a new terminology. Pupil activity, creative projects, self-chosen tasks, pupil-initiated problems, purposeful activities, and other revolutionary principles have been discovered, recognized, and labeled. This process was carried on in apparent ignorance of ancient and modern practices of a similar nature. . . .

The second type of evidence which leads me to say that teachers are scornful of their professional history is the derogatory comparisons which are so frequently drawn between present practices and those of the past. It seems to be difficult for the progressive teacher to realize that his predecessors also tried to organize materials clearly, to motivate the pupil, to discover apt and unique devices for presentation. He is therefore likely to visualize teachers of preceding generations as dry, dull, tedious, plodding drillmasters, utterly devoid of psychological insight—the natural enemies of childhood. . . .

The phrase "progressive education" furnishes another instance of this type of pedagogical reformation. Its philosophy seems to rest upon the assumed discovery of the true nature of the child and upon the implications of this discovery. It is true that the success of the new procedure has been demonstrated mostly by such contrasts as the following: rigid, formal, unpsychological as opposed to natural, informal, and psychologically appealing. One who is skeptical of the advantages of modern improvements finds himself in the awkward position of advocating an "unnatural" instead of a "natural" curriculum; a "slavish" instead of a "free" atmosphere; an imposed "task" instead of a "freely chosen project"; an "illogical" instead of a "psychological" organization; and a "fabricated confusion" instead of "real-life situations." Thus progressive education scores a verbal victory.

A third reason for saying that the teacher defies his past is to be found in the reports of committees and conferences. These official groups have been concerned almost wholly with content and with the form which this content should assume in the classroom. Ignoring the fact that the art of teaching is rather old and that a study of it might throw some light upon how to achieve success, these reports stressed "what" to teach and said little about "how" to teach. They cast out a few allusions to the intimate tie between method and content. They saw clearly that method cannot function in a vacuum, that it must function through content. They failed to point out the equally significant fact that method cannot function even through content in an empty room. Method functions through content *for someone*. In other words, national committees, by omitting or minimizing method, have furthered the notion among teachers that the way to learn to teach history is to study history. "Know your content and method will take care of itself," has been said so often that it no longer elicits thought. It is a stereotyped reaction, a sanctified shibboleth. It is possessed of that marvellous vitality which error seems to have.

I hasten to point out that this indictment of committees does not apply to the recent Commission of the American Historical Association, for it has provided for a whole volume on the subject of method.

My fourth proof that the neglect of the history of teaching is the besetting sin

of pedagogy is to be found in the general attitude of teachers toward the history of education. Repeated surveys of the teaching of this subject indicate its decline, its unpopularity, its futility. This condition may be due to the poor preparation of the professors of the history of education, to the poor quality of the content, or to the lack of pertinency in the content. It is fairly clear that the history of past teaching does not function in the practice of the typical teacher. Scorned and neglected by the historians, the historical approach to education has been all but rejected by the educators also. This result seems strange. Historians are generally supposed to have some faith in the utility of history. One might then expect them to have faith in the historical approach to, what is for many of them, a bread-winning side line. Regardless of the responsibility for the failure of history to function in the field of education, one must lament such an outcome.

TRENDS IN SCHOOL LEGISLATION

The State School Legislative Reference Service of the National Education Association has made available in mimeographed form an abstract of a study of recent trends in state school legislation prepared by Walter D. Cocking, commissioner of education in Tennessee. The summary of the major trends is quoted below.

Since 1900 the states have assumed more direct responsibility for controlling and financing the programs of education. This procedure has resulted in increased legislation dealing with various phases of the school program. In this brief study it has been impossible to deal with all important problems, but the trends as revealed by the data presented may be summarized as follows:

1. More than half of the states have adopted new forms of taxation to either replace or supplement the property tax.

2. Through the adoption of equalization plans most of the states have indicated an interest in providing an adequate school program for all children, but only a few states have been willing to pay for more than 30 per cent of the cost of this program.

3. Legislatures have enacted many provisions requiring that certain subjects shall be included in the school curriculum. However, the tendency in recent years has been to delegate to state school officials the responsibility of determining and regulating the curriculum.

4. There has been a gradual increase in the number of states requiring that textbooks be provided at public expense.

5. Most state boards of education have not been delegated the responsibility of selecting textbooks.

6. There has been a rather uniform development in the regulations affecting compulsory attendance. The period of time for compulsory attendance has been extended, and the requirements for labor permits have become more stringent.

7. Most states have assumed the control of teacher certification and have raised the minimum requirements for initial certificates.

8. Approximately 50 per cent of the states have adopted teacher-retirement systems.

9. Progress has been made since 1900 in developing state salary schedules, but since 1930 teachers have been required to bear a significant part of the reductions in local and state governmental costs.

10. Ex officio members are being eliminated from state boards of education.

11. There has been little change in the method of selecting the chief state school officer.

12. Very little progress has been made in the development of larger local school units.

13. Few states have enacted provisions regulating school transportation.

14. Many states have reorganized their state programs of higher education and have unified the control of all institutions under one state board.

The following statement is made with respect to trends in state legislation affecting the teaching personnel.

According to [the accompanying] table significant progress has been made in setting a minimum requirement of two years beyond high-school graduation for all initial elementary certificates. Prior to 1900 state boards and state departments of education had very little to do with the issuing of teachers' certificates. As may be seen from the table, only five state departments of education issued all certificates to teachers in 1900. In 1933 this number had increased to thirty-nine. These data are evidence that states have now assumed most of the responsibility for determining the qualifications of teaching personnel.

Another important problem which has been given much attention is that of the turnover and tenure of teachers. Many proposals have been made concerning teacher-tenure legislation, but the table indicates that in most states legislation has not yet been enacted concerning indefinite tenure of teachers. An effort has been exerted for the development of state-wide retirement systems. Definite progress was made between 1900 and 1926 along this line. Since the depression began, little progress has been made in the development of retirement programs.

The State School Legislative Reference Service also supplies information with respect to educational legislation during 1935. The so-called "high-spots" in 1935 school legislation are described as follows:

Forty-seven state legislatures met in regular or special session during 1935. Important new school laws were adopted in thirty-nine states. Several new plans for financing schools were inaugurated. Michigan, Ohio, and Alabama, among other states, established minimum school programs. State aid for schools was redistributed in New Jersey, Oklahoma, Vermont, and other states. A num-

ber of states, including Washington, Missouri, North Carolina, and Texas, considerably increased state support for education. Teachers' minimum salaries were established or restored by Indiana, New Jersey, Oregon, and Wisconsin. Tenure provisions were strengthened for certain areas in California, New York, and Oregon, and retirement benefits increased or extended in California, Illinois, and Pennsylvania. Six states (Colorado, Illinois, Louisiana, New York, Pennsyl-

TRENDS IN STATE LEGISLATION AFFECTING TEACHING PERSONNEL

ITEM	NUMBER OF STATES IN WHICH LEGISLATION WAS IN EFFECT, DISTRIBUTED ACCORD- ING TO YEARS												
	1934	1933	1930	1927	1926	1921	1920	1915	1914	1910	1904	1903	1908
At least two years beyond graduation from high school required for all initial elementary certificates.....	37	...	7	...	...	0	...	...	...	...	...	...	...
At least four years beyond graduation from high school required for all initial high-school certificates.....	38	...	...	12	...	...	...	...	...	...	...	...	...
No definite scholarship requirement stipulated for initial elementary certificates.....	8	...	12	...	15	30	...	...	...	...	...	...	...
All certificates issued by the state department of education.....	*	39	...	...	36	26	...	...	15	...	...	5	3
Indefinite tenure of teachers stipulated†.....	*	12	...	...	...	...	8	...	...	3	...	...	...
A trial or probationary period of teaching service specified.....	*	12	...	...	...	...	8	...	...	3	...	...	...
A state-wide retirement system for teachers in effect.....	23	...	...	...	22	...	...	11	...	...	2	...	...

* Information not complete for 1934.

† Only in two states are all teachers affected.

vania, and South Dakota) initiated surveys of public education, emphasizing general problems, school revenue, state aid, employment of teachers, or higher education. Idaho, Indiana, Utah, and Wyoming ratified the federal Child-Labor Amendment.

AN EVALUATION OF THE EXAMINATION SYSTEM IN ENGLAND

In 1931 the Carnegie Corporation of New York, the Carnegie Foundation for the Advancement of Teaching, and the International Institute of Teachers College, Columbia University, instituted a series of international conferences on examinations. The countries represented at the first conference were England, Scotland, France,

Germany, Switzerland, and the United States. In each of the European countries represented, committees were set up under grants from the Carnegie Corporation to investigate the prevailing system of examinations. From time to time other conferences have been held.

A recent publication by Sir Philip Hartog and E. C. Rhodes, entitled *An Examination of Examinations*, summarizes an extensive investigation of the system of examinations now employed in England. The main object of the investigation in England was "to test the concurrence of the marking of a number of examination scripts [answer books] by a number of independent examiners, or, in certain cases, by two independent boards of examiners." All the scripts used had been written by candidates in the course of an ordinary examination, and in every case papers were graded by examiners who had had experience in grading papers of the kind being graded. All examiners were paid in accordance with the usual scale for marking papers. The results of the investigation are devastating to the idea that there is any high degree of reliability in English examinations. For educators everywhere the results of this investigation are significant; for English educators they are particularly disturbing because of the very great importance that attaches to their system of examinations. "It guards the gates that lead from elementary education to intermediate and secondary education, from secondary education to the universities, the professions, and many business careers, from the elementary and middle stages of professional education to professional life."

We quote the summary statement with respect to the reliability of School Certificate Examinations in History.

Fifteen scripts were selected which had been awarded exactly the same "middling" mark by the School Certificate authority concerned, and these scripts were marked in turn and independently by fifteen examiners, who were asked to assign to them both marks and awards of failure, pass, and credit. After an interval which varied with the different examiners, but was not less than twelve nor more than nineteen months in any instance, the same scripts, after being renumbered, were marked again by fourteen out of the fifteen original examiners (one examiner being unable to serve again). The fourteen examiners assured us that they had kept no record of their previous work, and this was indeed obvious from the results.

Whereas the scripts had been all allotted the same moderate mark by the original examining body, they were allotted by the fifteen examiners on the first occasion forty-three different marks out of a maximum of ninety-six, varying from twenty-one to seventy. On the second occasion the total number of the different marks was forty-four, and the marks varied from sixteen to seventy-one. There is no space here to analyze the differences of the marks allotted by the various examiners to the same candidates. In one case the difference was thirty marks out of the maximum of ninety-six.

Perhaps the most striking feature in the investigation is this: On each occasion the examiners awarded not only numerical marks, but the verdict of failure, pass, or credit. In comparing the two sets of awards, we can only take into account the 14 examiners who acted on both occasions. On each occasion the 14 examiners awarded a total of 210 verdicts to the 15 candidates. It was found that in 92 cases out of the 210 the individual examiners gave a different verdict on the second occasion from the verdict awarded on the first.

In nine cases candidates were moved two classes up or down. One examiner changed his verdict in regard to eight candidates out of the fifteen. Yet he only varied his average by a unit, and he awarded the same number of failure marks, one less pass, and one more credit. Such irregularity of judgment is not only formidable, but it is one which would not be detected by any ordinary analysis. Statistically his results on the two occasions were almost the same, but the fate he allotted to half the candidates was different.

In some cases the examiners altered their general standard on the second occasion. One examiner moved eight candidates down a class, and one down two classes. Another examiner moved seven candidates down a class. Of the fourteen examiners there is only one who was exceptionally steady and whose numerical mark never varied by more than seven out of one hundred.

It may well be asked, in view of the extreme differences of these results, what validity can be attached to the marking of School Certificate History papers. It is perfectly true that, as Professor Spearman has pointed out, validity and "reliability" or concurrence of marking are by no means equivalent terms, but no process of measurement can be valid when it yields such discrepant results in the hands of the same examiners on two different occasions.

English educators are convinced that their system of examinations needs improvement. The following quotation, however, reveals that they are not disposed to abandon the essay for the so-called "objective" type of examination.

The question may at once be asked: Should examinations be abolished? If not, what remedies can be suggested?

The committee are clearly opposed to the root and branch policy. They are of opinion that examinations as a test of efficiency are necessary. They are further of opinion that, in addition to those examinations which yield identical

results when applied by different examiners (e.g. "new-type" or "objective" examinations), the traditional "essay" examination should be preserved. But they hold that it is as impracticable to recommend an a priori cure for the defects of the present examination system as it would be to recommend an a priori cure for a disease. It is only by careful and systematic experiment that methods of examination can be devised not liable to the distressing uncertainties of the present system.

THE PERSISTENCE OF ONE-ROOM SCHOOLS IN THE UNITED STATES

Despite the fact that the one-room school is, as a rule, expensive and inefficient, it is still numerically the dominant type of school in the United States. The following statement relating to one-room schools by Emery M. Foster, chief of the Statistical Division of the United States Office of Education, is quoted from a recent issue of *School Life*.

For the United States as a whole, 57.6 per cent of all public-school buildings were one-room in 1933-34 (see table [on pages 570-71]). This percentage decreased from 60.1 per cent in 1930. If the country is divided into nine divisions, the West North Central states have the highest percentage of one-room schools, 78.2 per cent. Every state in this division is organized on the district basis, and every state except one has 75 per cent or more of its schools of the one-room type, and Missouri, the remaining state has 74.4 per cent one-room schools. Of the eight states having 75 per cent or more one-room schools, six are in the West North Central division. The three Pacific states averaged 26.9 per cent one-room schools, and the four West South Central states averaged only 36.6 per cent one-room schools.

The eight states having the largest percentage of one-room schools in 1933-34 were: South Dakota, 88.5; North Dakota, 80.9; Nebraska, 80.3; Wisconsin, 79.4; Iowa, 78.0; Kansas, 76.2; Minnesota, 75.8; Montana, 75.0.

The seven states having less than 25 per cent one-room schools in 1933-34 were: Utah, 9.0; New Jersey, 11.0; Massachusetts, 14.6; Rhode Island, 14.6; California, 17.4; Arizona, 21.3; Texas, 24.8.

GUIDES FOR THE EFFECTIVE ORGANIZATION AND ADMINISTRATION OF THE ELEMENTARY-SCHOOL LIBRARY

One of the most wholesome changes that has taken place in the schools of this country during the past two decades has been the increasing emphasis on what may be called the "library method of instruction." The better schools have abandoned excessive reliance on the restricted content of textbooks and are providing pupils with a

NUMBER AND PERCENTAGE OF ONE-ROOM PUBLIC-SCHOOL
BUILDINGS 1933-34 AND COMPARISON WITH 1929-30

DIVISION AND STATE	TOTAL NUMBER OF SCHOOL BUILDINGS	ONE-ROOM SCHOOLHOUSES USED		
		1933-34		1929-30*
		Number	Per Cent	Per Cent
United States.....	241,428	139,180	57.6	60.1
New England.....	9,863	3,928	39.8	46.2
Maine.....	2,345	1,642	70.0	69.0
New Hampshire.....	892	476	53.4	56.5
Vermont.....	2,114	982	46.5	48.8
Massachusetts.....	2,726	399	14.6	17.5
Rhode Island.....	438	64	14.6	35.3
Connecticut.....	1,348	365	27.1	33.3
Middle Atlantic.....	25,388	13,581	53.5	56.0
New York.....	11,416	7,251	63.5	66.3
New Jersey.....	2,051	225	11.0	17.5
Pennsylvania.....	11,921	6,105	51.2	53.7
East North Central.....	43,211	27,477	63.6	68.5
Ohio.....	6,690	3,121	46.7	54.9
Indiana.....	4,128†	1,830†	44.3	57.9
Illinois.....	15,517	9,990	64.4	70.9
Michigan.....	8,585	5,957	69.4	70.0
Wisconsin.....	8,291	6,579	79.4	79.8
West North Central.....	58,204	45,542	78.2	79.7
Minnesota.....	8,929	6,765	75.8	76.9
Iowa.....	11,820	9,215	78.0	79.2
Missouri.....	9,810‡	7,296†	74.4	74.9
North Dakota.....	5,552	4,492	80.9	83.6
South Dakota.....	5,128	4,539	88.5	88.5
Nebraska.....	7,554	6,068	80.3	79.9
Kansas.....	9,411	7,167	76.2	80.7
South Atlantic.....	30,134	14,728	48.9	50.9
Delaware.....	251	134	53.4	49.0
Maryland.....	1,546	710	45.9	54.9
District of Columbia.....	172	2	1.2	.6
Virginia.....	5,134	2,675	52.1	49.2
West Virginia.....	6,093	3,928	64.5	67.2
North Carolina.....	4,803	1,502	31.3	36.0
South Carolina.....	3,782	1,661	43.9	43.8
Georgia.....	6,269	3,170	50.6	57.1
Florida.....	2,084	946§	45.4	43.9

* A few states seem to show large changes from 1930 to 1934. These are probably apparent only and due to the data not being comparable for the two years.

† Statistics, 1932.

‡ Statistics, 1926.

§ Statistics, 1930.

NUMBER AND PERCENTAGE OF ONE-ROOM PUBLIC-SCHOOL
BUILDINGS 1933-34 AND COMPARISON WITH
1929-30—*Continued*

DIVISION AND STATE	TOTAL NUMBER OF SCHOOL BUILDINGS	ONE-ROOM SCHOOLHOUSES USED		
		1933-34		1929-30*
		Number	Per Cent	Per Cent
East South Central.....	23,657	14,046	59.4	58.7
Kentucky.....	7,943	5,537	69.7	76.0
Tennessee.....	6,008	2,987	49.7	51.3
Alabama.....	5,471	2,759	50.4	50.3
Mississippi.....	4,235	2,763	65.2	50.7
West South Central.....	25,345	9,283	36.6	40.2
Louisiana.....	2,987	1,228	41.1	46.2
Texas.....	11,844	2,934	24.8	28.8
Arkansas.....	4,646	2,621	56.0	58.5
Oklahoma.....	5,868||	2,500	42.6	44.3
Mountain.....	11,829	6,890	58.2	61.1
Montana.....	3,311	2,483	75.0	76.1
Wyoming.....	1,507	933	61.9	68.8
Colorado.....	2,965	1,738	58.6	57.8
New Mexico.....	927	611	65.9	59.4
Arizona.....	705	150	21.3	32.0
Utah.....	721	65	9.0	13.8
Nevada.....	340	208	61.2	59.7
Idaho.....	1,353	702	51.9	57.4
Pacific.....	13,797	3,705	26.9	29.7
Washington.....	2,423	874	36.1	36.5
Oregon.....	2,654	1,312	49.4	48.6
California.....	8,720†	1,519†	17.4	20.5

|| Statistics, 1928.

rich and wide variety of instructional materials. This increasing emphasis on richness and variety of materials of instruction necessarily modifies the function of the school library. In fact, the library becomes the functional center of much that goes on in the school. Obviously the success of the library service in the elementary school will depend on the degree of understanding that superintendents, principals, and teachers have of the function of the library and of their respective relations to its organization and administration.

Two recently published bulletins should prove especially helpful to school officers and teachers, as well as to school librarians. The first of these, entitled *The Library in the Elementary School*, is published by the State Department of Education of California. The bulletin was prepared by a well-qualified group comprised of librarians, representing the California Library Association and the School Library Association of California, and of educators primarily engaged in elementary-school work. The following paragraphs quoted from the Preface indicate the major purposes that the committee had in mind in preparing the bulletin.

To prepare material on the place and use of the library in the elementary school for the guidance of teachers, principals, supervisors, and superintendents.

To indicate desirable standards for the training of elementary teachers in the areas of library usage, in children's literature, and in the function of the elementary-school library in modern education. . . .

The bulletin is designed to give in brief scope the place of the library in the modern elementary school, its organization and administration for use by elementary-school administrators, supervisors, and teachers. The professional librarian will be familiar with the techniques presented, but the adaptation of these techniques to the elementary-school situation and the relation of the library to the school may be of service to the trained librarian.

The general content of the bulletin is indicated by the chapter headings: "The Organization and Administration of the Elementary School Library," "The Training of Librarians and Teachers for Library Service in the Elementary School," "Book Selection and Order Routines," "Preparation of Books for the Shelves," "The Physical Preparation, Care, and Mending of Books," "The Library Room," and "Reading Guidance and Instruction in the Use of the Library." Each chapter is followed by a selected bibliography.

The second bulletin, entitled *Aids in Book Selection for Elementary School Libraries*, was prepared by Edith A. Lathrop and is published as Pamphlet Number 65 of the United States Office of Education. Persons who are responsible for the selection of books for elementary-school libraries will find this pamphlet an indispensable guide. Its content is arranged under the following major topics: "Aids Available through State Agencies," "Lists Issued by Boards of Education," "Services of Public Libraries," "Services of the American Library Association," "Other Sources," "Guides to New Books," and "Other Available Publications on School Libraries."

A CHECK LIST FOR THE APPRAISAL OF SCHOOL-BOARD POLICIES IN THE SELECTION OF TEACHERS

The following statement by J. B. Edmonson, dean of the School of Education of the University of Michigan, is quoted from a recent issue of the *Kansas Teacher*.

In order that school boards may appraise their policies in the selection of teachers, this article presents a check list of practices that illustrate good procedures followed in some of the better school systems. These practices emphasize the importance of the function of the board of education in establishing policies and in appraising the results, and define the responsibility that the superintendent of schools should assume in carrying out the policies defined by the board of education. Some of the practices involve controversial issues on which there may be marked differences of opinion, but a discussion of these issues is likely to result in improved practice. The list was prepared originally for use in the "Michigan Handbook on Teacher Employment," which has been issued in tentative form by the Michigan Educational Planning Commission. The list, with a few modifications and additions, follows:

1. The board will expect the superintendent to take the full responsibility for initiating and making all nominations of teachers.
2. The board will expect each candidate to file with the superintendent a formal application on the regular form that has been approved by the board.
3. The board will refer all candidates and all correspondence regarding candidates to the office of the superintendent.
4. The board will reserve the right to reject any or all nominations and to require the superintendent to submit new ones.
5. The board will not permit discrimination in favor of a local candidate but will select the best candidate regardless of residence.
6. The board will not look with favor on the nomination of a candidate who is a near relative of the superintendent or of a member of the board.
7. The board will expect the superintendent to try to fill a vacancy by the recommendation of a candidate with as high or higher qualifications than his or her predecessor.
8. The board will adopt a statement of its minimum requirements for selection for different kinds of teaching, with special reference to standards of preparation, experience, previous success, health, and related matters.
9. The board will require the superintendent to have a personal interview with a candidate before recommending him to the board, or to submit adequate reasons for waiving this requirement in a given case.
10. The board, in filling the more important positions, will allow traveling expense to the superintendent for the purpose of interviewing and observing the work of promising candidates.
11. The board will hold the superintendent responsible for securing all essential information concerning the personality, the health, the preparation, and the experience of a candidate before making a recommendation to the board.

12. The board will expect the superintendent to guarantee that a candidate will possess a legal teacher's certificate before he undertakes his duties as a teacher.

13. The board will consider as strictly confidential all discussions and recommendations relating to candidates, especially local candidates.

14. The board will report only the information that a certain teacher has been employed and will not give to newspapers or in other ways make public the names of candidates rejected.

15. The board will expect the superintendent to furnish evidence of the most critical care in all matters pertaining to the selection of teachers, including some account of his criteria of judgment of candidates.

16. The board will place a very high value on the success of the superintendent in selecting as competent teachers as the policies of the board will permit.

It is suggested that a superintendent of schools prepare copies of the foregoing list and use it as a basis of discussion with the board of education. Such discussion should lead to the re-examination of present policies. In many instances it may be found that a board of education has never formulated any policies relating to the selection of teachers and has never attempted any appraisal of results. In such instances the board is blamable for its failure to recognize the importance of a well-defined set of policies relating to the selection of the instructional staff. Real expertness in the selection of teachers should be the goal of every superintendent of schools, but such expertness cannot be secured without the sympathetic and intelligent co-operation of the board of education.

WHO'S WHO IN THIS ISSUE

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THE SIGNIFICANCE FOR TEXTBOOK-MAKING OF THE NEWER CONCEPTS IN EDUCATION¹

CHARLES H. JUDD
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Textbooks have increased greatly in size since earlier times when the amount of material covered in school courses was very meager. This increase in size means that there is a demand for rich content. The new demand is due in part to the increased ability of pupils in schools and students in colleges to read and thus gain knowledge by independent study. Some years ago my attention was drawn to a statement made in 1898 by President Eliot. He said:

I procured two careful estimates of the time it would take a graduate of a high school to read aloud consecutively all the books which are read in this [elementary] school during six years, including the history, the reading lessons in geography, and the book on manners. The estimates were made by two persons reading aloud at a moderate rate, and reading everything that the children in most of the rooms of that school have been supposed to read during their entire course of six years. The time occupied in doing this reading was forty-six hours.²

It is well known that today such a statement would not be in keeping with the facts. Pupils in present-day elementary schools read ten times as much as Eliot found pupils reading in 1898.

There is another reason why textbooks have grown larger. The range of scholarship is much broader today than it was even half a generation ago. In geography, for example, it is not enough for a book to give the list of products of a country and a description of its boundaries, as did the textbooks of 1910. Some of us can recall the old geographies which had length and breadth so as to accommodate maps but little extension in the third dimension and in information. History was also compacted in the earlier days into a volume which was concise and dogmatic. It was perfectly certain in the minds of

¹ A paper read on February 23, 1936, before a conference of publishers and a committee of the National Council of Education.

² Charles William Eliot, *Educational Reform*, p. 185. New York: Century Co., 1898.

early writers of history that England was unqualifiedly in the wrong in the Revolutionary period. It is easy when one has only a few ideas in the field of history to couch denunciations in short, pithy sentences. In modern textbooks on history England is brought to the bar but is allowed a hearing and the hearing consumes space. Even the arithmetics are more bulky than they used to be. There is a mild effort to make them attractive. Only increase in volume can achieve this end.

The enlargement of textbooks has resulted in very general abandonment of the formal methods of teaching which were prevalent in former times. When textbooks were short, modeled after the catechism, pupils could be expected, and were expected, to learn by heart all that was in them. Perhaps a more forcible way of putting the case is to say that teachers could repeat all that was in the books. When the contents of mental life expanded, as they did with the expansion of civilization, the methods of teaching automatically changed from methods demanding memorizing to something else.

The something else to which modern schools have come is confusingly complex. I read with great interest the paper presented at the last meeting of this group by a leading publisher of schoolbooks in which educators were told in no uncertain terms that they ought to settle down to the use in each course of a standard textbook. I repeat, I read the paper with great interest. I do not agree with what was said, and I do not have the slightest expectation that it will influence practice. The fact is that there is no agreement these days as to what a course should include. I realize that the situation is distressing to publishers. I am myself disturbed at times by the violent disagreements among educational leaders. When I listen to the pronouncements of Kilpatrick and Bagley, I am convinced that it is impossible to induce them and their followers to use the same plan of teaching, and certainly it is impossible to find any textbook on which the two could agree as a safe guide for a given course. What am I, who am not a dogmatist—at least not a dogmatist of the two schools referred to—to do? If those of us in the Middle West can no longer look for papal bulls from the East, does it not seem clear that the day of a single textbook for each course is past? The day of standard,

universally acceptable reading materials of moderate compass passed with the invention of the internal-combustion engine.

There are two procedures which are being adopted in different quarters at the present time in the effort to overcome the formalism of earlier days. One is to abandon altogether systematic teaching and with it all textbooks. The so-called "activity school" takes the position that life is not a neatly arranged sequence of problems in arithmetic and geography but a highly complex medley of happenings in which arithmetic and geography are so intimately combined that it is a mistake to mislead children in the schools by dividing their thinking into compartmentalized specialities. The activity school aims to arrange its instruction in the sequences dictated by the lives of children. There is another name for this kind of school program. The child-centered school is hardly to be distinguished from the activity school.

The publishers are having a bad time with the activity school and the child-centered school. The activities and children in Rochester do not seem to correspond closely with the activities and children in Bronxville. Rural children and city children live in different worlds. The coal miners of West Virginia and the dam-construction workers in the Tennessee Valley approach the world from different points of view.

It can very properly be conceded that the activity school and the child-centered school are right in demanding that teachers pay attention to the environment and that they draw illustrative materials from the pupils' surroundings. I hope that what I am saying will not be interpreted by anyone as a confession of adherence on my part to the creed of the radicals who want to dispense with all system and all organization of instructional materials. My psychology teaches me that the processes of education, while using illustrative materials that vary from locality to locality, must make pupils conscious of certain fundamental principles which are not to be confounded with concrete examples. We are not here, however, to discuss psychological doctrines. We are here to ask how the multiplicity of educational theories affects the textbook business. The answer to the question which this meeting is asked to consider is clear. If all the schools of the United States became activity schools

or child-centered schools, there would have to be a publisher for every sixteenth section of every township.

There is a second and less extreme position than that of the child-centered propagandist. Many a school is today experimenting with the library method of teaching. One of my good friends who is a book publisher told me not long ago that fewer orders are now coming in for collateral reading material than for basic textbooks. He went on to say that the orders do, indeed, favor those basic textbooks which make the largest concessions to the demand for extensive reading.

My reaction to this report is that it is likely to mislead the thinking of publishers. I interpret the curtailment of collateral reading—if such is actually taking place—to economic conditions, not to educational trends. Schools have been forced to economize to such an extent that they cannot afford many books. The result is that they have been estopped for the time being from doing anything but keeping alive. The basic textbook is a small library. Note, if you will, that the basic textbooks which are being called for are those which have, so far as single books can, the characteristics of the library. It is the library idea which shines through the dark cloud of poverty. As soon as the schools have the necessary money, the library method of teaching is, in my judgment, sure to become prevalent.

If the conclusion which I have stated has truth in it, the question at once arises: What is the library method? The broad statement that the library method is likely to be generally adopted does not in itself mean very much for there are as many different kinds of libraries as there were formerly kinds of basic textbooks.

I can hardly hope to catalogue to the satisfaction of all publishers the different kinds of school libraries, but I will mention a few of the kinds known to all of us. There is the encyclopedia library. Among the school encyclopedias there are different types. Some have many pictures, including colored plates; some emphasize text.

A second type of school library includes books which discard the conventional classifications of history, geography, and economics and present in sweeping outlines philosophical views about the world in general.

A third type of school library is made up of books in which the masterpieces of literature have been reproduced in simplified form. Vocabularies and sentence structures have been made over so as to make the standard literary works easily intelligible to elementary-school pupils.

A fourth type of school library consists of brief booklets or even pamphlets each of which treats in summary fashion a single limited topic.

There may be other types of school libraries to which the foregoing classification does not do justice. Certainly anyone who goes into the book market where children's books are on display just before Christmas or anyone who looks over the new readers offered to schools in unprecedented abundance will be convinced that the library method is making advances but not along any single, well-defined path.

The essence of the library method of teaching is that it opens to the pupil great collections of ideas rather than meager collections of dogmatic statements. It is not likely that this essential purpose of the library method will be interpreted in the same way by different educators and different publishers. We are in a period of experimentation. The partisans of one interpretation of the library method are often unable to see any good in the interpretations adopted by those who do not belong to their party. The result is a state of chaos or at least near-chaos in the schools. I do not believe that chaos can be dispelled by going back to ancient traditions any more than I would expect to correct the difficulties of the railroads of the country by going back to the construction of canals. The way to correct the chaos is to arrive at a general understanding of the fact that the schools of the country are passing through a period of experimentation. Everyone ought to try to cultivate an attitude of hospitality for everything that anyone is trying.

I am encouraged to believe that publishers can find much ground for optimism in the present situation. In the long run there is going to be even greater expansion of reading materials than has already taken place. I believe that this expansion will go far beyond what is now thought by most of us to be indicated by present book sales.

At this point I come to the part of my paper which I am able to

formulate with much less confidence than I feel for what I have said in earlier paragraphs. I am going to venture, however, on the hazardous undertaking of advising publishers with regard to their duty and opportunities. I frankly confess that I am an amateur in the book business, and I shall not be at all offended if some friend in this company tells me so. I ask only that reference to my alleged incompetency be expressed in the courteous language commonly employed in the highly competitive book trade.

I think publishers should stop aiming at large adoptions of a single book in a given field and should concentrate on the effort to cultivate among boards of education and school people in general the idea that children have a right to many books in each field. I think that publishers should deliberately seek several good books in each field and should publish them with the idea clearly in mind that every school should be supplied with more than a single standard textbook in any one field.

I read among the statements issued by publishers the bitter complaints which are made because school systems spend so small a fraction of their budgets on books. I sympathize very heartily with the idea that schools and colleges should spend as much for libraries as for laboratories. The fact is that book publishers have encouraged parsimony, the natural attitude of all taxpayers, by failing to preach the true gospel of library equipment of schools.

There is a second piece of advice which I have to offer publishers. In my judgment, a high degree of flexibility ought to be introduced into school practice. There are books in history which are excellent in their treatment of the evolution of governmental institutions. There are other books which have better discussions of industries and their growth. The difficulty with a great many books is that they are leveled down to mediocrity because each publisher feels that each book which he publishes must cover all phases of the subject with which it deals rather than limit itself to that phase which the author is most competent to treat. I am trying to suggest that publishers offer to the schools small units of reading matter rather than general compendiums.

I am sure that by this time some of you are thinking of my recommendations as the vaporings of an impractical visionary. Some of

you are thinking that the cost of the program which I am suggesting is preposterous. Of course, I shall not try to deny that the multiplication of books involves financial outlays of a new kind on the part of publishers and on the part of schools. Please note that I said "outlays of a new kind"; I did not say merely "outlays of greater amounts." I am not afraid of expenditures by schools in greater amounts for material which is of value; nor am I pessimistic about the future in this respect—I think I can point out some of the ways in which economies can be effected to balance in some measure the increases in expenditures for books which are inevitable.

I am told that an ordinary schoolbook cannot be sold after it is five years old unless the publisher at least professes to have revised it. There are, I am sure, units of instruction that do not need to be revised every five years. Revision is, of course, necessary whenever new ideas appear. The new ideas usually supplement rather than destroy older ideas. Why not put the additions to a subject in the form of small units and thus keep the school library up to date rather than continue the pernicious and wasteful habit of overhauling a whole collection of topics every five years for the purpose of fooling people with the idea that one is publishing a new book?

I have ventured at earlier meetings of this group to characterize the textbook business as perhaps the most highly competitive business in the United States. Great numbers of high-powered sales agents and sales devices are abroad in the textbook business of this country. There is danger in the methods now in use because they destroy public confidence in schoolbook publishers. I heard a prominent member of a board of education say some time ago that the school system with which he was connected was very slow in paying for schoolbooks because the publishers were not carrying on their business with due regard for the interests of the public. The statement which I have just repeated is not one which I would be willing to sponsor. I have repeated it merely for the purpose of stimulating publishers to think of methods of educating boards of education to see the importance of converting the public to look at the whole textbook business from a new point of view—from the point of view that schools are the homes of libraries rather than merely of textbooks.

There is another advantage which would be gained, I believe, if all instructional materials used in schools were so transformed as to lay emphasis on small units rather than complete textbooks of the conventional type. At present the ordinary teacher does not have the courage to contribute to the teaching materials of the school beyond preparing lessons for his or her own class. The preparation of a complete textbook is a formidable task. It is undertaken only under very special conditions by a teacher who has had long experience or is stimulated by unusual circumstances. A great many excellent formulations of individual lessons are entirely lost because the habit of putting individual lessons into permanent form has never been cultivated in the American educational system. There is a consequent deplorable lack of initiative among ordinary teachers. By bringing out this fact in the present connection, I do not mean to imply that publishers alone are responsible for the situation. I am sure that the whole educational system must assume the responsibility for stifling the initiative of teachers. My plea is that the publishers contribute to a major reform by devising ways of arousing competent teachers to the opportunity and duty of preparing comparatively short lessons which require investigation but do not require the ambitious series of investigations necessary for the preparation of a pretentious book.

What I have attempted to say can perhaps be summarized in the statement that there are trends clearly visible in the newer concepts of education to which the authors and publishers of instructional materials may well give heed. The trends are all in the direction of expansion. Expansion gives range and breadth to teaching. It supplies incentives for initiative and independent work to both pupils and teachers. It furnishes an opportunity to publishers to experiment. It opens the way for education of the public to a wholly new attitude about schoolbooks as the essential means of classroom teaching. It contains the promise of expansion for the textbook business and of a new, less violently competitive form of this business.

EDUCATIONAL, PSYCHOLOGICAL, AND PHYSIOLOGICAL FACTORS IN READING READINESS. I

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THE PROBLEM

Reading readiness is a problem that is receiving much attention from educators, psychologists, physiologists, and others interested in child growth and development. There is, however, an apparent conflict between common practice and the findings of research. Findings in the fields of psychology and physiology tend to point to the advisability of postponing the beginning of the reading process, while educational practice tends toward the requirement of more reading at an early age. The purpose of this article is to point out present trends in the beginning of the reading process, to indicate the more important psychological and physiological factors involved in reading, and to summarize and evaluate the evidence bearing on reading readiness.

Reading readiness means the maturation of all the mental, physical, and emotional factors involved in the reading process. Regardless of the chronological age of the child, the point at which the child's growth and development have brought about proper maturation of these factors should be the point at which the reading process begins. To take wholly into account these factors would necessitate changes in the school curriculum and school program in order to adjust instruction to the needs of each child and to make provision for many more types of educational activity at the first-grade level. The adoption of such a program would undoubtedly eliminate much of the present retardation and remedial work necessarily carried on in the majority of schools.

Educators, psychologists, and physiologists believe that the child should not be taught reading until he is psychologically and physiologically equipped for the process. General practice does not harmonize with this belief because of the fact that the traditional age for entering Grade I is six years. The chief function of Grade I has been and still is, in most places, to teach the child to read, little account being taken of his psychological and physiological development. Standards set in courses of study call for a maximum attainment in reading. Teaching standards and the practice of giving standard tests in most up-to-date schools call for high attainment in reading skills at lower levels. Many new superior textbooks, reading books, and other reading materials are being published constantly and brought into the school to serve as additional incentives for teachers and pupils to attain the highest possible reading ability. The activity program calls for and develops many new stimulating reading situations. Competition urges both pupils and teachers on to higher and higher attainments in reading. Parents bring pressure to bear on the school in the belief that the ability to read at an early age is a sign that their children are as well equipped as other children. On some aspects of the reading-readiness problem experimental data are entirely lacking; on other aspects scientific data are meager and unsatisfactory; and the data available are, on the whole, scattered and unusable for those actually engaged in teaching.

Thus, at the outset the problem is complicated and many sided. There is much work for the scientist and the educator. The scientist must set up and carry on investigations to determine the exact nature of all psychological and physiological factors implicated in the reading process. He must determine when each of these factors reaches a stage of maturation necessary for reading and then set up standards of practice in usable form for the educational workers in the field. The educator must then set about revising school curriculums and programs in order that these may take into account the findings of the scientist. The school curriculum and program must be so adjusted that the time and energies of pupils and teachers can be utilized to gain the best possible results. Some few beginnings have been made, but much remains to be done.

EDUCATIONAL PRACTICES

A review of thirty-seven of the forty-eight state courses and numerous city courses of study has led the writers to the belief that successful attainment of reading skills is still the goal of most of the first-grade work throughout the country. Most of the courses set standards of attainment by prescribing definite numbers of books to be read, definite numbers of words to be learned, and definite skills to be mastered, as well as suggestions for making all activity work function in reading. Many courses even carry this work into the kindergarten level by setting many pre-reading standards and attainments. The following quotation (36: 17-18, 21, 49) from one of the most recent and progressive state courses of study shows what is expected in the kindergarten and Grade I in California.

KINDERGARTEN

ACTIVITIES WHICH DEVELOP READING INTERESTS

Kindergarten children will probably not experience a great interest in books unless the teacher does something definite about arousing interest. She must make her reading aloud so interesting that children will want to read for themselves.

1. Provide contact with good books. . . .
2. Provide for definite periods in which teacher and children do interesting things with books. . . .
3. Match pictures and words, words and words, and Mother Goose rhymes and pictures.
4. Let children make their own books of pictures and drawings. A few words may be printed in the children's books by the teacher.

GRADE I

First-grade objectives.—(1) To develop a love for reading and a desire to read. (2) To understand that printed symbols convey meaning. (3) To develop a sight vocabulary. (4) To gain ability to read. (5) To make progress in independent reading.

Outcomes to be attained by the end of the first grade.—(1) To read silently with few or no lip movements. (2) To discuss intelligently the things they have been reading. (3) To read aloud clearly, naturally, and in thought units. (4) To handle the book with care, open and turn pages properly, and know the order of paging. (5) To understand that printed symbols convey meaning. (6) To read and enjoy reading material of first-grade difficulty at sight. (7) To comprehend and reproduce the main facts in the material read. (8) To dramatize simple stories. (9) To follow written directions within their own vocabulary. (10) To

repeat several poems. (11) To stand erect, hold book correctly, and keep the place in the book with the thumb on the margin.

Other courses of study set up such objectives as the following: to develop pleasure in the silent reading of easy first-grade material at the rate of eighty words a minute, to gain facility in handling initial consonant and short and long vowel sounds, to acquire a sight vocabulary of five hundred words gained by reading from ten to twenty-five primers and first readers. Most of the courses of study set up suggestive programs allotting from eighty to ninety minutes, or about a third of the school day in Grade I, to reading activities (31).

Only the first-grade teacher actually engaged in teaching knows the real work involved for teacher and pupils in trying to attain the foregoing objectives. Only the expert can realize the co-ordinations of mental, physical, and emotional factors necessary for accomplishment. About half of the typical first-grade pupils appear to be sufficiently mature to carry on and enjoy the achievement; the other half, though stimulated, drilled, coaxed, and coerced, do not reach the standard. Some of the latter are retained in the grade and thus given the stigma of failure; others pass on to the next grade but are retarded later or become the self-recognized lower end of each successive class, unless, indeed, their development catches up with what is expected of them.

The fact that many progressive strides have been made during the past two decades must not be overlooked. The traditional aims have yielded to new objectives stressing the development of rich and varied experience; the building of strong motives for, and permanent interests in, reading; and the formation of economical and effective reading skills. More up-to-date methods of instruction, in harmony with the best psychological theories and experimentations, are now being published constantly, but each of these too often becomes one more hurdle which the overzealous teacher expects her six-year-old pupils to conquer. Even with these added improvements a large proportion of the children in Grade I are unable to profit by the reading activities.

In some cases steps have been taken to postpone the beginnings of the actual reading process until the pupils are ready for it. Lula

E. Wright, first-grade teacher at the Lincoln School of Teachers College, Columbia University, reports in detail the experiences of a non-reading first-grade class. The attitude toward reading readiness is summarized as follows by L. Thomas Hopkins in the editor's introduction:

This initial readiness of pupils is intimately related to intelligence, maturity, and area and depth of experience. To fail to teach reading to the child who has keen interest in, and desire for, reading is considered unsound practice. To attempt to teach reading to children who lack readiness due to meagerness of previous experience is equally undesirable. For them the reading problem is not one of building economical and effective habits and skills but of providing a program of work directly related to their interests, varied in approach and scope, rich in area and depth of content, and so meaningful that the desire to read may follow normally as a means of making subsequent experience richer [38: x].

The narration of the activities that gave these children their "area and depth" of experience makes an interesting and instructive description of what appears to be an ideal situation. While Wright makes clear that the work was designed to give the children a background of experience, certain questions arise regarding the handling of the experiment. How were the intelligence and the maturity of of the children determined? Were tests and devices of many kinds used to discover the exact stage of maturation of such factors as mental ability, speech and language, motor co-ordination, vision, and hearing? How did the teachers determine the six-year-old children who were ready to read and those who were not ready? Since the work was reported in 1932, educators would like to know about the subsequent school progress of these children. Were the reading skills easily acquired at the second-grade level? What was the percentage of retardation in Grade II, in Grade III, and on up through the grades? Wright gives a few items showing the progress of individual pupils in Grade II, but on the whole the future progress and adjustment of these experimental children are not accounted for.

Here and there educators, psychologists, medical men, and other authorities are advising postponement of reading, suggesting six years and six months up to as late as the tenth year as the proper ages for beginning reading and claiming that children will reach maturity with no loss and much gain. These people, however, pro-

duce little or no experimental data to back up their claims. If in the ideal school of the future each child is to be considered a law unto himself and the study of reading is to be initiated only after reading readiness has been fully determined, many changes will have to be made in the prevailing school organization. Few schools are equipped or have enough properly trained teachers to carry on a program such as that outlined by Wright. In many schools it would probably be necessary to have a non-reading and a reading program in progress in Grades I and II and perhaps in Grade III in order to take into account all the maturation problems involved in the individual pupils' readiness to read. The larger and better-organized schools could attempt such a program, but the average town and country school would be severely handicapped.

Schools are beginning to make adjustments in various ways. A few, mostly private schools, are giving up reading standards as a basis of promotion from Grade I; others do not require reading in Grade I; and still others have a transition class between the kindergarten and Grade I. In some cases there is a question whether the program substituted by these schools better fits the needs of the developing six-year-old child than does the traditional program, and there is often no provision made for teaching reading skills later than Grade I. The first-grade work becomes largely a repetition of kindergarten activities, and the child is in danger of passing on through school without having a chance to master the reading skills. If the reading program is to be eliminated from Grade I, there is need for careful planning to provide a program that will take care of the developing child and that will give him opportunity to master reading skills when he is ready.

There is a growing movement to devise tests for determining developmental factors in reading readiness. Those testing psychological and physiological factors will be treated later in this discussion. Hildreth and Griffiths (16) are responsible for a test designed (1) to determine the extent to which pupils are ready to learn first-grade skills and (2) to analyze the difficulties revealed. There are six tests, including pictured situations for studying reactions to similarities, copying situations, vocabulary content, sentence comprehension, elementary number concepts, and range of information. One won-

ders what advantages this test has over the Detroit First-Grade Intelligence Test, the Pintner-Cunningham Primary Mental Test, and other tests of similar nature. At any rate, the reading-readiness test is a movement in the right direction, and it is to be hoped that such tests will develop some real standards for determining readiness to read.

PSYCHOLOGICAL FACTORS

Mental ability.—Mental ability, as measured by tests, is certainly one of the factors to be given consideration in determining reading readiness (19). Numerous individual and group tests are available for determining mental ability of school children, and the literature on the subject would fill volumes. A number of schools now use a mental test as part of the school-entrance procedure, but for various reasons many schools that administer tests cannot make adequate use of the results. In most states the law permits a child to enter school when he is chronologically six years of age regardless of his mental ability. Consequently, even a small group of typical six-year-old pupils in Grade I may have mental ages ranging from four years to eight years. In most cases the best that can be done is to use the test results in classifying children into bright and dull groups and in attempting to adapt instruction to the pupils' needs. Much of the emphasis is now placed on using the results of mental tests to determine what instructional materials and methods are best suited to the various mental ages. Sad to say, the school's activity is largely centered in providing simplified materials and additional drills to bring slow or dull pupils up to grade standards. *The problem should be how to develop the child within his capacity rather than how to bring all children to reach a given standard.*

More exact information is needed on what is the best mental age for beginning the teaching of reading in order to assure better school progress and child adjustment. Morphett and Washburne report an investigation (28) indicating that, by postponing the teaching of reading until children reach a mental age of six years and six months, teachers can expect to decrease greatly the chances of failure and discouragement and can correspondingly increase efficiency. More such investigations would undoubtedly prove of value in setting up standards. Teaching reading to controlled groups with mental ages

of seven, seven and a half, eight, and so on, and then following the later school progress of the same pupils would yield valuable data on the mental aspect of the question.

Speech and language.—Speech and language, although one of the characteristics that places man above animals, has only recently been given emphasis as a phase of child psychology. The relation of speech and language to reading is plain enough, since it is only through the former that the latter exists. It is obvious that there is need for maturity in speech and language development before the reading process begins. Because of differences in homes and other environmental conditions contributing to speech and language development, there is definite need for the school to take a hand in the process. Irwin and Marks's criticism of 1924 probably fits many schools of 1936:

In its feverish haste to teach the child to read, the school forgets entirely to teach the child to talk. The taboo on talking in the classroom is carried to such an extent that even when the children are turned loose on the playground, they communicate with each other almost entirely by nudges, shouts, and monosyllables. With the single exception of the kindergarten, no provision is made in the public-school curriculum for children to introduce topics of interest to themselves and discuss them with their classmates. Is it not within the province of the school to teach children to converse with each other intelligently instead of placing a premium on furtive whispering, which is at present their only outlet for a normal desire to be sociable? [21: 121-22.]

It is indeed putting the cart before the horse to attempt to teach the child to master and interpret the printed symbols of speech and language before we are certain that he has acquired the necessary speech and language to do so.

Let us examine this mark of distinction of the human being. In the words of Morgan:

Speech is an extremely elaborate affair involving a number of organs whose primary function is not at all related to speech. The larynx, while it produces the sounds so essential in speech, is not essentially a speech organ. . . . The lungs, which provide a bellows to activate the vocal chords of the larynx, are used primarily to imbibe oxygen. Their use in speech is a secondary affair. The resonance cavities in the head and throat are used as openings to take in food and air. The lips, tongue, and throat muscles, which provide stoppage and friction mechanisms for the construction of guttural, labial, and lingual sounds take on speech functions as an added duty.

The co-ordination of all these organs is essential before the child can make much progress in the use of speech as a social device. If a child is to develop normal speech, he must be given a great amount of opportunity to practice these organs in order to gain control of them. The more freedom he has in these early reactions, the better. He will develop a range of pitch, resonance, and a variety of articulations which will never be achieved if adults step in too quickly and attempt to make him produce conventional sounds [27: 271].

The implications here are obvious. The school may be hindering rather than aiding this wonderful development.

Furthermore, as McCarthy says:

Language proper emerges in late infancy; and yet in the course of a short three years the child has a highly developed system of linguistic habits that he uses for the expression of his every need and desire, both physical and intellectual, and, in addition, he is able to use all the most complex forms of sentences with appropriate inflections, and his vocabulary amounts to several thousand words [29: 329].

This rapid development of such an elaborate system of linguistic habits should lead the educator to take into account all the individual differences that may exist in even a small group. Are the first-grade teachers giving consideration to all the implications of speech and language development? Would it be better for the child to have a year above the kindergarten for gaining speech and language experiences before turning to the printed symbols? Here again investigations are needed to determine the best procedure.

Many interesting studies (11, 13, 18, 24, 25, 29: 329-73, 32, 34) have been made of the developmental stages of speech and language; size, growth, and content of vocabularies; length and content of sentences used; functions of language; and the relation of language to other developmental factors, such as sex, intelligence, motor ability, and environmental factors. Many of these studies have thrown light on what can be expected of the child in reading. As far as the writers know, no standards have been worked out to determine exactly the extent of the speech and language development that should take place before the child is ready to take up reading. The determination of such standards is a job for the future investigator. It is also likely that the future educator will need to plan to give speech and language development a definite place in first-grade work, along with the acquirement of depth and

area of experience. This plan will result in the use of better speech and language in the schools from Grade I through college. It is also likely that many defects can thus be prevented and cured before they do damage to the child by making difficult his adjustment to society.

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[To be concluded]

A STUDY OF THE HONESTY OF PROSPECTIVE TEACHERS

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In the light of the importance which the Character Education Inquiry¹ placed on honesty in the total character pattern, the findings of Watson and Forlano² as to the high rank among character tests of Maller's Self-marking Test, and the disagreement of Charters³ and Symonds⁴ as to the importance of ideo-motor control, the following account of some studies of honesty made in a teachers' college may be of interest. The first investigations were carried on before Hartshorne and May, Bird, Moore, Goodwin Watson, or other writers had made known the results of any extensive studies in deceit or honesty in college. The later studies were made in the spring of 1935. Taken together they reveal how much of a certain kind of cheating was done by prospective teachers; the general correlation of cheating with intelligence, overstatement, achievement, and effort; the effect of fear of failure; and the effect of ethical instruction which required transfer and retention as compared with instruction which was direct and immediate. The results point to ways of minimizing cheating in school tests and perhaps shed some light on the general problem of honesty.

The first experiments were carried out in 1927 with 110 women students in four classes in principles of education. The majority of the students were completing their first year in the teachers' college

¹ Hugh Hartshorne and Mark A. May, *Studies in Deceit*. Studies in the Nature of Character, I. New York: Macmillan Co., 1928.

² Goodwin Watson and George Forlano, "Prima Facie Validity in Character Tests," *Journal of Educational Psychology*, XXVI (January, 1935), 1-16.

³ W. W. Charters, *The Teaching of Ideals*. New York: Macmillan Co., 1927.

⁴ Percival M. Symonds, *The Nature of Conduct*. New York: Macmillan Co., 1928.

and expected to be doing student teaching the following term. The method used was to have the students self-check their responses to a general-information test, two forms of which had been found to be approximately parallel when tried out with 168 students the year before. In order that there should be many errors in the students' work and therefore many temptations to alter responses in an apparently plausible test, the fifty true-false statements of the test were on supposedly common subjects, but they were "catchy." "Tin never rusts" and "Minneapolis is farther north than Paris" are samples. This test of so-called "general information" was given in the first week of the spring term. Impossible of detection by the students, a paraffin sheet duplicating the work was attached beneath the paper on which they put the plus or minus sign or left a blank for the response to each of the statements. The paraffin sheets were removed by the instructor before the papers were returned on the following day for self-checking from the list of correct answers which had been placed on the blackboard. While the students were checking their papers, there was no supervision; the papers lay on their desks for the entire period; and it was implied that the average expectancy was eight errors although twenty-three was the actual number. Moreover, whether they made any alterations or not, the students were required to be using their pencils because they were directed to circle every blank and every incorrect response. Their resistance to altering their answers was further decreased by laying stress on the importance to a teacher of a large fund of correct general information, and nothing whatever was said about honesty. Thus, if fear of failure, ease of alteration, and lack of recent recall of ideals are factors in the determination of the amount of cheating, a rather large amount of cheating would be expected. When the results were checked, the fact that a well-informed student would have fewer errors and therefore less opportunity to make alterations, if he so desired, was taken into consideration, and the results were based on the number of incorrect answers and blank spaces.

The group averaged 28.3 chances for alterations and utilized 2.45, or 8.7 per cent, of these chances. Of the 110 prospective teachers, 56 (50.9 per cent) made from one to fourteen alterations. Twenty-four (42.9 per cent) of these students made one or two alterations,

and four students (7 per cent) made more than ten. When the correct responses were counted, the honest group was found to be slightly better informed, the mean scores being 30 and 28.3 for the honest and the dishonest groups, respectively. Since the students had been directed to leave blanks in case of doubt, the number of incorrect responses gave the amount of overstatement. The difference in the amount of overstatement was marked, the means being 12.9 and 19.8, respectively, for the honest and the dishonest groups, with a critical ratio of 4.6. In intelligence the honest group made a mean score of 82.6 and the dishonest a mean of 77.6 on the Miller Mental Ability Test, the difference being 2.37 times its standard error. As these results point to a positive correlation of honesty with amount of information and with intelligence and a negative correlation with overstatement, they are in accord with the findings of other investigators.

The common belief among experienced teachers seems to be that those students who put forth considerable effort on their work, whether they be bright or dull, are not likely to be cheaters. The relation between effort and honesty was investigated, but the method can be made clear only by anticipating some of the findings at the end of the term, when another test was given.

An effort rating for each student was secured by keeping a record throughout the term on such points as neatness and punctuation of papers, memorization of occasional topical outlines or key sentences, collection of pictures for future use, and faithfulness in the performance of other mechanical tasks in connection with the care of the classroom on certain days. Those students who had been entirely honest in the self-corrections were found to have a mean effort score of 27, while those who had cheated made only 20.9. The critical ratio of 4.0 proves that there is a positive relation between honesty and effort.

The next procedure showed the effect that ethical instruction concerning one form of honesty had on another form after a lapse of time. One group of thirty students was reserved as a control group. To this group nothing was said of honesty, but in all other ways the group received the same instruction as the three classes of eighty students which constituted the experimental group. To the latter

group, before each of the six bi-weekly tests on the subject matter of the course, a short talk was given pointing out some ways by which these students in their later teaching could keep their pupils honest during the taking of tests. Such points were brought out as the need and the method of controlling the eyes, the avoidance of all appearance of evil, the usual correlation between intelligence and honesty, and the fact that sitting far from others or covering one's work need not imply suspicion. Every talk brought out some point on the problem of preventing children from getting help from their neighbors' papers, but nothing was said of honesty in self-corrections. None of these talks consumed more than five minutes of class time.

During the last week of the term the parallel form of the general-information test was administered to all four classes and was self-corrected as before. Several uncontrolled variables undoubtedly affected the findings. All these variables were of a nature to reduce that resistance to cheating which the ethical talks were designed to establish. The most potent of these factors was probably the fact that an important topic of the regular term's work was concerned with the value to teachers of a large fund of general information: (1) There was a chapter in the textbook on "Apperception." (2) There were frequent observations of spring flowers which had been brought to the classroom. (3) The students were taken on class excursions to museums and industrial plants. (4) They were required to make picture and specimen collections and every week to bring to class a child's book on science or travel. By the end of the term the students apparently felt that their marks in the second general-information test would be a major factor in their term marks in the course in principles of education and in the recommendations given them for teaching positions. To have removed this vitiating factor of variability in the study would have necessitated the soft-pedaling of an essential portion of the regular term's work—a procedure which seemed unfair to the students' future pupils. A second variable resulted from the fact that, when the second test was given, final examinations were being administered in other subjects and these helped create a tense atmosphere. A third factor tending to annul the effect of ethical instruction was the fact that two weeks before the first test an assembly lecturer had created much amusement at the expense of

general-information and intelligence tests, but, when the second test was given, three and a half months had elapsed since that talk. In the final test it may have occurred to some of the students for the first time that in this type of test, not commonly given or self-corrected in the school, alterations would be easy. The final ethical instruction on not getting help from a neighbor's paper during the writing of a test had been given more than a week before the final

TABLE I

COMPARISON OF EXPERIMENTAL GROUP HAVING ETHICAL INSTRUCTION WITH CONTROL GROUP HAVING NO SUCH INSTRUCTION ON BASIS OF BEHAVIOR IN TWO TESTS OF HONESTY

GROUP	DISHONEST STUDENTS		MEAN NUMBER OF ALTERATIONS OF ANSWERS
	Number	Per Cent	
Experimental group:			
Test I.....	42	52.5	2.49
Test II.....	43	53.8	2.21
Both tests.....	54	67.5	.....
Control group:			
Test I.....	14	46.7	2.36
Test II.....	21	70.0	3.46
Both tests.....	24	80.0	.....
Both groups:			
Test I.....	56	50.9	2.45
Test II.....	64	58.2	2.55
Both tests.....	78	70.9	.....

test. Thus, several factors tended to increase cheating, and only the ethical instruction would account for a diminution, should there prove to be any.

The results are shown in Table I. Since 70 per cent of the students in the control group altered some answers on the second test, contrasted with 46.7 per cent who did so on the first test, it appears that these several factors tending to increase cheating were indeed potent. Since the percentage of students in the experimental group who altered some answers on the second test was 53.8 compared with a corresponding percentage of 52.5 on the first test, it would appear that

something completely balanced these opposing factors. The only known factor to which this result can be attributed is the ethical instruction. The difference between the experimental and the control groups in Test I before any ethical instruction had been given to either group showed the experimental group to be slightly more dishonest, but the critical ratio ($-.17$) showed the difference to be statistically insignificant. After the instruction had been given, in spite of the operation of the factors tending to increase cheating in both groups, the difference between the mean number of alterations made by the two groups (1.25) was 1.46 times the standard error of the difference, a result indicating a slight statistical significance. Since the ethical talks occupied but one minute of class time per student out of the entire term, the differences between the mean number of alterations would indicate that the time was well spent.

An unforeseen relation to ease of cheating developed. The students were seated in a triple semicircle with the answers on a side board at the rear. Some of the students were compelled to turn clear around in order to see to alter their papers during the forty-five minutes that the papers lay on their desks, others need turn only part way around, and the answers were directly in front of others. When the groups were divided into three subgroups on the basis of ease in seeing the answers, the percentages of dishonest students were 60, 75, and 80, while the percentages making over ten alterations were 11, 16, and 25. Thus, it would appear that both the number of dishonest students and the amount of individual dishonesty increased with the ease of dishonesty. The effect of this factor was greater than the influence of the ethical instruction and indicates that honesty, as other investigators have since repeatedly found, is not a unit characteristic.

The ethical instruction all through this experiment had treated that form of honesty involved in not getting help from a neighbor's paper during the writing, but the investigation was concerned with altering answers the next day from a blackboard list. According to the Gestalt theory, the total pattern was quite different in the two situations, and the ethical instruction should not have been expected to have great effect. In the spring of 1935, therefore, with roughly similar classes, an effort was made to see what the effect would be of

making the ethical instruction fit the exact situation and of more nearly approximating the usual school test conditions by relieving somewhat the fear element.

In these later investigations only one test of general information was given, and the results for the entire 110 students of the former test before any ethical lessons had been given, were used for comparison. There are no respects known to the investigators in which the students of 1935 differed essentially from those of 1927. No check was made of intelligence, effort, or overstatement in the later experiment. One of the tests was on the subject matter of the course. None of the later classes were overly impressed, as the former group had been, with the life-and-death seriousness of their performance in the test, and each test was given, not during the last week, but during the fifth week, of the term. Three classes (averaging thirty-five in number) were handled in different ways in order to get varied hints as to factors that would make for honesty.

Under the guise of warning the future teachers never to allow their pupils to self-check tests which are designed to furnish marks and never to use tests in which plus and minus signs are made for the answers, each class was reminded of the ease of changing a minus sign to a plus sign and of filling in blanks during self-checking. The remark was made, "Children's moral natures are undeveloped, but I am not afraid to use this method with you." In one group, entered under "Test III" in Table II, this instruction was given four days before the general-information test. In the other two cases, represented in "Test IV" and "Test V" in Table II, the instruction was given the same day immediately preceding the self-checking. In the last group, Test V, just before the self-checking, a specific remedy for this difficulty was also given. It will be recalled that 42.9 per cent of the cheaters in the early investigations made only one or two alterations. For that reason remarks were now made about the prevalence in life of small sins in contradistinction to the scarcity of great ones. "It is the little foxes that spoil the vines," was amplified in its application to the temptation to change only one or two answers.

The results of these last three investigations, together with those of the two groups in the first experiment, are shown in Table II. An ordinary situation with no moral instruction had resulted in a mean

of 2.45 alterations, which went up to the slightly significant figure of 3.46 when the fear of consequences of failure became very great. Moral instruction on a different form of honesty than that needed

TABLE II
EFFECTS OF VARIOUS FACTORS ON HONESTY

Test	Emotional Situation	Nature of Ethical Instruction	Time of Instruction	Number of Students	Mean Number of Alterations of Answers	Critical Ratio
I (1927)...	Earnest	None	.....	110	2.45	-0.17
II (1927)...	Tense	None	.....	30	3.46	.....
II (1927)...	Tense	On control of eyes	10 to 2 weeks before test	80	2.21	1.46
III (1935)...	Earnest	On control of eyes and on self-checking of plus and minus test	4 days before test	26	1.50	1.71
IV (1935)...	Earnest	On control of eyes and on self-checking of plus and minus test	Same day as test	41	0.43	5.22
V (1935)...	Earnest	On control of eyes and on self-checking of plus and minus test and on specific remedy for the temptation	Same day as test	39	0.25	5.77

reduced this mean to 2.21, with a slightly more significant ratio. When the instruction included specific reference to the type of situation met with, the mean number of alterations went down to 1.50, and the critical ratio showed that the chances were twenty to one that the difference was real. When this instruction was given immediately before the temptation, the alterations decreased to an average of less than one-half, and the difference was statistically signifi-

cant (5.22 times the standard error). When the instruction included a specific remedy for the temptation, the mean number of alterations became only 0.25, and the chances were millions to one that the result would always be the same. Ethical instruction immediately before the temptation on the specific form that the temptation would take proved most effective.

The numbers of cases were small and the varying factors were not entirely controlled, but the studies seem to indicate that the proportion of students who are dishonest in tests is in direct relation to the procedure of the teacher. Under normal emotional conditions self-correction of plus and minus tests brings a disquieting amount of cheating in direct relation to its ease. Intelligent and energetic students tend to be honest, but a group will be decidedly more honest if class management makes cheating difficult, if the emotional atmosphere is wholesome, and especially if specific ideals related to the form of procedure at hand have been recently presented or recalled. The honesty of a group of students seems to be in the control of the instructor.

EDUCATIONAL ACTIVITIES OF THE W. K. KELLOGG FOUNDATION

HENRY J. OTTO

W. K. Kellogg Foundation, Battle Creek, Michigan

The W. K. Kellogg Foundation, Battle Creek, Michigan, was established in 1930 by Mr. W. K. Kellogg for the purpose of promoting the health, happiness, and well-being of children. In the effort to fulfil the purpose for which it was established, the foundation co-operates with established agencies and individuals in local communities. The official channel through which the foundation co-ordinates its efforts in a community is the county health department. To date, the major portion of the foundation's work has been confined to southwestern Michigan. Seven counties are now participating in what is known as the Michigan Community Health Project, which encompasses a population of approximately 280,000 people.

Although the W. K. Kellogg Foundation by no means confines its activities to education, the decision was made in the early stages of development of its program that education is one of the most fruitful and permanent channels through which the health, happiness, and well-being of children can be promoted. As a result, the educational program has developed into a broad and comprehensive pattern encompassing all the component elements in a community which have any direct or indirect bearing on the health, care, and training of children. In philosophical terms it might be said that the ultimate objective is to assist all groups and individuals in a community gradually to rise to higher and higher levels of human living, especially as that living relates to the well-being of children, so that present and future generations of children will have a better environment in which to grow up. Therefore, education is being used as one of the chief vehicles for achieving that objective.

Obviously, this program has been operating for too brief a time to be complete in any sense of the word. In fact, four of the counties

have entered the program since July, 1934, two of which entered in September, 1935. It is likely that, if the organization is continuously sensitive to needs, there will always develop new opportunities for education. The remainder of this article is devoted to descriptions of educational activities already under way or contemplated for the near future.

POSTGRADUATE EDUCATION OF PHYSICIANS

On the assumption that the local physicians of a community bear a significant relation to the health of children and of the community as a whole, that they can be potent educational agents in a community, and that continuous postgraduate training of medical practitioners is necessary and desirable, plans were made whereby the physicians in the area of the Michigan Community Health Project might be assisted to keep themselves continuously abreast of research findings and newer procedures in medical practice. The physicians of each county are organized into a county medical association or society, which meets regularly eight or ten times a year. More than half of each year's meetings are devoted to the presentation and discussion of new developments in medicine. The W. K. Kellogg Foundation co-operates with each society by securing desired outside speakers from leading medical schools, children's hospitals, and research centers. To date, the foundation has assisted in obtaining speakers for fifty-three such meetings.

This program of continuous in-service training is supplemented by scholarships to postgraduate courses at medical schools or children's hospitals. Such centers as the Cook County Hospital and the Children's Memorial Hospital in Chicago, the Herman Kiefer and Henry Ford Hospitals in Detroit, and the Medical Schools at the University of Michigan and at Columbia University have been used. These special postgraduate courses have usually been of two weeks' duration and have covered topics in preventive medicine, children's diseases, pediatrics, psychiatry, etc. The scholarships to these courses cover tuition and expenses. One hundred and sixteen physicians have attended one or more of these courses. This number represents 85 per cent of the physicians in the area. Thirty-eight physicians have

attended two courses, and one man has attended three. These figures summarize the program up to September 1, 1935.

On occasions the physicians of a county hold joint meetings with the dentists to discuss common problems. Recently the physicians of one of the counties had a joint meeting with the veterinarians to discuss the problem of undulant fever. Joint meetings of physicians and superintendents of schools and of dentists and school superintendents are contemplated. Usually at a joint meeting a speaker is secured to discuss a topic which is of mutual interest to the two groups involved.

Numerous evidences are at hand to indicate that this professional education of physicians has enabled them to improve their services and has qualified them to give better attention to the health of children and others in the community.

POSTGRADUATE EDUCATION OF DENTISTS

The plan for the continuous postgraduate education of dentists is essentially the same as that for physicians. Each county has its dental society, which holds meetings regularly during the year. Up to September, 1935, the W. K. Kellogg Foundation had assisted these dental societies by securing speakers for twenty-nine meetings. Of course, the societies have held many more meetings, but some of them have been business or social meetings, and the programs for some of them were provided through channels other than the foundation.

Two-week postgraduate courses for dentists have been provided by the Dental School at Northwestern University, the Murry and Leonie Guggenheim Dental Clinic in New York City, and the Forsyth Dental Infirmary in Boston. Fifty-eight out of sixty-five dentists in the area have attended one or more postgraduate courses for a total of 171 weeks. In the main, the postgraduate courses for dentists have dealt with children's dentistry. It is interesting to note that typical rural dental practice of today includes little work with children, although the most effective preventive work can be done with children. So far as the writer knows, the first postgraduate course in children's dentistry was arranged by Northwestern University at the request of the W. K. Kellogg Foundation. Needless

to say, the practice of children's dentistry has increased tremendously in this area since this work has been emphasized.

Persons in education will be interested in knowing that many of the postgraduate courses contained one or more lectures by educators. These dentists were interested in securing information on the psychology and the desirable approaches to use when working with children, how to make their educational contributions to children and parents most effective, how they could co-operate with schools in their instruction in oral hygiene, and how they could become potent educational forces in the community through lectures to P.T.A. groups and pupils. Some of these educational talks to dentists were given by Professor S. A. Hamrin, then of Northwestern University, and by the writer at county dental society meetings. Recently the dentists requested an educational talk for an evening meeting. Professor Charles H. Judd, of the University of Chicago, was invited to come. Ninety dentists from seven counties gathered to hear him, some of whom had to drive distances as great as eighty to a hundred miles (one way) to attend the meeting.

POSTGRADUATE EDUCATION OF TEACHERS

In many ways the problem of teacher education is similar to the problem of training physicians and dentists. Continuous in-service professional growth is necessary. In some ways, however, the problem of teacher education is different from the problem of postgraduate education for physicians and dentists. Teachers, unlike physicians as a group or dentists as a group, do not all hold the same college or university degree. There are likewise differences in the professional competence of those who possess equal amounts of college preparation. The problem of education of teachers in service becomes still more complex when it is realized that these seven counties in southwestern Michigan are typically rural; that they contain approximately eight hundred one-room rural schools; that the training of the teachers varies from one year in a county normal school to the years of training necessary to secure the Master's degree, which is held by some of the superintendents and high-school teachers; that for many teachers general education is as much needed as profession-

al training; and that salaries are rather low, averaging around fifty to seventy dollars a month for the rural teacher.

Although it is fully recognized that for many of the teachers general education is needed, the W. K. Kellogg Foundation has confined its interest to the professional phases of in-service training. In the main, the types of training which the foundation has assisted teachers in obtaining have dealt with areas of child life and training which were not touched on or which were touched only lightly in the pre-service education of the typical elementary- or high-school teacher and with newer developments in the more conventional fields. Since many teachers have had little opportunity to become well versed in health education, mental hygiene, and problems of social adjustment and child guidance and since the entrée to working in a community is through the county health department, health education in its broad sense has been stressed by the teacher-education activities of the foundation. The interest in teacher education is not, however, to be confined to health education. Since the foundation is dedicated to the promotion of the health, happiness, and well-being of children, it must be interested in all phases of the school program which relate to that objective.

To date, teacher-education activities in the W. K. Kellogg Foundation program have taken the following forms.

1. *Teacher encampments.*—The foundation owns and operates two camp schools, which are located fifteen and thirty miles, respectively, from Battle Creek, Michigan. During the month of September these camps are used for meetings of adult groups. The policy has been to use the week ends during September for meetings of teachers. Usually the teachers of a county are invited to one of the camps for a week end as the guests of the foundation. They arrive after school on Friday and remain until Sunday afternoon. While they are at the camp, a program of lectures, demonstrations, and recreation is provided. Leaders in the fields of education, medicine, dentistry, and public health are secured as lecturers and discussion leaders for the encampments. During September, 1935, 1,528 teachers were reached by a two-day program in seven such encampments.

2. *Local conferences and study groups.*—During the school year groups of teachers in each county are assisted in carrying on profes-

sional activities in the form of lectures or conferences. If a group of teachers is interested in studying remedial reading, mental hygiene, curriculum reorganization, or some other phase of school improvement, the W. K. Kellogg Foundation will secure speakers or discussion leaders. During 1934-35 the high-school teachers of four counties, by co-operative action of the superintendents and high-school principals, were organized into study groups. The group in each county decided on a series of topics in which they wished to center their reading and discussion. The foundation co-operated with these groups by providing them with bibliographies of recent materials in the fields covered by the topics in the study programs, by lending each high school a basic professional library of eight or ten books which the school might keep during the school year, and by securing speakers.

In one of the counties the program-planning committee decided to devote all the time for the year to the study of one topic, namely, mental hygiene. The committee expressed a desire to have the study organized like a university course, with reading assignments and lectures. The W. K. Kellogg Foundation secured a specialist in mental hygiene, who worked out the reading list and then gave a series of six lectures, one each month, beginning in November.

Beginning in September, 1935, a plan was developed for in-service training through local conferences and study groups. Each county was divided into several territories, the number ranging from four or five to ten or more. Each territory represented more or less of a natural unit in the county. Usually each unit contained at least one urban school and the surrounding rural schools. The elementary-school teachers (urban and rural) of each territory or unit were encouraged to organize into a teachers' club with its own officers and program committee. The membership of these clubs ranges from thirty to fifty. Each club meets from six to eight times during the school year. Some of the meetings are social, but most of them are professional. In many instances the high-school teachers in the territory are also members of the club, and in most cases the superintendent of schools is a member. Someone from the county health department (the family health counselor or public-health nurse) is a member of each club and assists with the programs. The foundation,

through the family health counselor, co-operates with each club by assisting it to secure speakers and professional books. It is hoped that these clubs will develop into permanent organizations and will do much to professionalize the teachers, especially the rural teachers, and to stimulate professional growth. Since the school superintendents have direct contact with these clubs and since they bring rural and urban teachers together to study common problems, it is likely that these organizations will aid in co-ordinating the rural and the urban schools.

3. *Extension courses.*—To assist teachers in obtaining systematic types of supplementary training which may be counted toward degree and certification requirements, the W. K. Kellogg Foundation has arranged with near-by graduate schools of education for extension courses. The tuition for such courses is taken care of by the foundation. During 1934-35 one such course was offered. About fifty teachers, mostly from rural schools, enrolled for credit. During 1935-36 six courses for as many counties have been arranged for. A course on methods and materials in health education in the elementary grades is offered in two counties, a course on adaptation of instruction to individual differences is being offered in two counties, and a course in mental hygiene is being offered in two counties. It is estimated that approximately five hundred teachers will be reached in this way.

4. *Summer scholarships.*—The extension courses and the other teacher-education activities are supplemented by summer scholarships covering tuition and \$12.50 a week for expenses. During the summer of 1935 one hundred scholarships were made available to school administrators (superintendents and high-school principals) for a six-weeks unit course carrying six hours of graduate credit and dealing with problems of mental hygiene, social adjustment, personality adjustment, health education, and guidance of school children. It might be said that this course dealt with the non-academic phases of child development, if the more formal curricular subjects are thought of as representing the academic objective of the school. Efforts were made to view the problems of child health and guidance as a broad community problem, in which various community agencies, organizations, and individuals play significant rôles. The school,

as one of these community agencies, has peculiar and significant functions to perform. In the course each class member was encouraged to develop plans and procedures which could be put into effect in his own school and community.

Scholarships were also offered to twenty-three kindergarten or primary-grade teachers for an eight-weeks intensive program in speech correction. These teachers (all from urban schools) have now come back to their respective school systems and are ministering to the needs of those pupils who have defects of speech, not only in their own schools, but also in the neighboring rural schools, from which teachers bring in the cases for diagnosis, consultation, and the outlining of a remedial program. Of course, it is not assumed that an eight-weeks course will make a specialist in speech correction, but it has enabled these teachers to assist the large majority of pupils who have minor difficulties. The teachers who took the work in speech correction have assumed this specialty as their unique contribution to the school's program, and their teaching schedules have been so arranged that they have time to work with the speech cases.

5. *Camp internships for rural teachers.*—The W. K. Kellogg Foundation is fortunate in having two camp schools which are operated the year around. These camps are located fifteen and thirty miles, respectively, from Battle Creek. During the school year there are fifty children (twenty-five boys and twenty-five girls) at each camp school. Each group of children stays three months, and then a new group arrives. The children are typically normal except that they are underprivileged economically, socially, or in health. While they are at camp, a comprehensive educational program is carried out under the direction of teachers holding Masters' and Bachelors' degrees in elementary education. Every possible occasion during each twenty-four-hour period of life at camp is utilized in an educational way. In addition, units of work, projects growing out of problems of group living at camp, instruction in tool subjects, and diagnostic and remedial measures are carried on. Every effort is made to have the educational program represent modern progressive practices.

Beginning in January, 1936, camp internships are available to rural teachers. The teachers are selected by the county commissioner of schools. Each teacher selected has the privilege of living one

week at one of the camp schools. While there, the teacher observes the various activities and participates in as many as possible. Every effort is made to have the rural teacher become familiar with the progressive practices carried on at camp. While the teacher is at camp, her salary continues with the local board as usual, and her substitute, selected and arranged for by the school commissioner, is paid by the foundation. It is hoped that this internship program will reach about thirty-six rural teachers between January and June, 1936.

6. *Subscriptions to "Hygeia," the Health Magazine.*—It has been the policy of the W. K. Kellogg Foundation to provide annual complimentary subscriptions to *Hygeia* to teachers within the area of the Michigan Community Health Project. During 1935-36, 1,970 subscriptions were provided.

7. *Professional consultation service.*—Since the nurses, who in this program are called "family health counselors," are required to hold the Bachelor's degree and to have training in education, public health, sociology, and social case work, as well as in nursing, they are qualified to be of service to teachers on a variety of problems, educational and otherwise, which arise in every school. Each family health counselor thus acts as a professional consultant to teachers in her area. During 1934-35, 12,208 visits were made to schools by these counselors. Consultations with teachers or with pupils, health talks, motion-picture exhibits, and routine services were given during these visits to schools. Many of the family health counselors had their teachers organized into clubs and thus met them regularly in groups.

SHORT COURSES

From time to time short courses are arranged for special groups which have unique services to render in this program. The following short courses have already been held or are being contemplated.

1. *Short course for school engineer-custodians.*—During June, 1935, forty-seven school janitors spent two and a half days at Michigan State College of Agriculture and Applied Science participating in lectures and demonstrations on problems of school sanitation, heating, ventilation, care and maintenance of floors, blackboards, etc. The assumption is that the school janitor is an important indi-

vidual in determining the environment in which children live while at school and that the janitors are eager for assistance with their problems. The enterprise has proved its worth. The men were offered scholarships for the course. Plans are under way for continuing this project, with advanced courses for those who attended in 1935.

2. *Short course for veterinarians.*—In rural areas the practicing veterinarian has a most significant relation to the health of the community. The farmer seeks advice from him on diseases of cattle, farm sanitation, the improvement of cattle and dairy products, etc. If the veterinarian is informed on public-health problems and becomes interested in bringing his influence to bear in behalf of the public good, he can be a powerful ally to the health department. He can convince the farmer more easily than anyone else that clean and high-quality meats and milk will eventually mean larger financial returns. There is also the possibility of using local veterinarians as assistants to the sanitary engineer in the inspection of milk and meat.

With these ideas in mind, a two-weeks short course on the diseases of animals and on meat and milk inspection was arranged at Michigan State College. Fifty-two veterinarians from within the area of the Michigan Community Health Project attended the course for the full two weeks. This number included all except five or six of the veterinarians in the area. Scholarships to the course covered transportation and living costs, and the college charged no tuition.

3. *Short course for hospital technicians.*—In an effort to help physicians to improve the quality of medical service in these rural areas and small towns, the W. K. Kellogg Foundation is assisting local hospitals to secure trained technicians or to provide advanced training to incumbent technicians. This assistance is usually given in the form of scholarships for the training of technicians. Those who are familiar with the hospital services in rural areas will appreciate the need for trained technicians as an avenue through which general medical service can be improved.

4. *Short course for private-duty nurses.*—Plans are being made whereby the private nurses in the area may be assisted to a fuller appreciation of the educational contributions which they can make to

parents and homes in the course of their duties. There has been some discussion of enlisting these nurses on a participating basis for maternity service in indigent homes. The private nurse would then have an excellent opportunity to do educational work in the interest of children in the homes in which such education is most needed.

INSTITUTES

On several occasions one- or two-day programs have been provided for various groups whose interest and active co-operation seemed essential to the successful progress of the program. The following are among the institutes already held or contemplated.

1. *Programs for members of boards of education.*—During December and January of 1934-35, five one-day institutes were held for members of boards of education, with a total attendance of 479. Four of the institutes were held at one of the camps. The programs covered such topics as school sanitation, the importance of the position of school-board member, the functions and duties of boards of education as agents of the state in the administration of the program of public education, and the program and activities of the county health department.

2. *Program for clergymen.*—A two-day program for clergymen was held at one of the camps and was attended by fifty-three clergymen of several denominations. Conflicts with the autumn conferences of some denominations prevented some of the groups from attending, but all were invited. The program covered the activities of the county health department, home and community problems in child guidance, health education, and a talk on current economic problems.

3. *Program for newspaper editors.*—A one-day program for newspaper editors has been held, and another is contemplated during 1935-36. Few will question the influence of the local newspaper in promoting projects relating to the health and well-being of children and in disseminating accurate health knowledge.

4. *Program for theater managers.*—A one-day program for theater managers is contemplated. The details have not been worked out, but theater sanitation and a discussion on "youth and motion pictures" seem fruitful suggestions.

5. *Program for leaders of local civic organizations, service clubs, and women's clubs.*—A one-day program for local leaders is a project under consideration. It seems essential that the leaders in various community organizations be well informed regarding the composite program of the Michigan Community Health Project. In fact, without thorough understanding and active interest on the part of these groups, the objectives of the program cannot be attained.

PARENT EDUCATION

Since the home is the most important single agency in the care and training of children, it is imperative that parents be assisted in obtaining sound and accurate information on the manifold problems inherent in the education and training of children. Also, unless parents are continuously informed on newer developments in education, little progress can be made in the improvement of the work of the public schools. Unless the patrons of a school are intelligent about, and actively interested in, modern educational practices, it matters little how fine a training the teachers may have. The quality of a school program cannot rise far above the educational concepts of the taxpayers.

During 1934-35 approximately fifty thousand pamphlets and bulletins on health and child care were distributed by the five county health departments then comprising the Michigan Community Health Project. Many teachers and superintendents had organized parent-teacher associations and mothers' study clubs. When the medical and dental inspections were made at school, parents were urged to accompany their children so that the physician or the dentist might discuss the health problems of each child with both the mother and the child. Approximately 60 per cent of the mothers were present at the medical inspections and about 12 per cent at the dental inspections. Local medical and dental societies have developed talks and slides which they are prepared to present at various adult gatherings when invited to do so. The health department cooperates with the physicians and dentists in these popular health talks by supplying slides, charts, etc. On several occasions when speakers were invited to talk to a teachers' club or a medical society, arrangements were made for a supplementary meeting at which the

speaker would talk to an open house. At one such meeting last year an audience of twelve hundred citizens came out to hear a talk by a noted psychiatrist.

Apart from the general types of activities named, the W. K. Kellogg Foundation has not taken active part in parent education; that is, the foundation has made no deliberate effort to go out and organize parent education on a basis similar to that on which the education of physicians, dentists, and teachers has been planned. It was thought that parent education would evolve more naturally and logically after the various professional groups had been led to see the broad community aspects of their problems and had prepared themselves to assume active leadership in the movement. In this way the leadership for parent education could come from the trained professions instead of from lay leaders, who frequently are no better informed on topics than the groups that they attempt to lead. Such leadership frequently resolves itself into an "ignorant exchange of ignorant opinion." Of course, lay leadership will always be necessary in organizing groups, creating interest, arranging for programs, organizing discussion groups, etc., but the actual professional knowledge imparted had best come from persons qualified to render scientific information in a way that the average parent can understand.

Parent education seems to be in the "growing-pains" stage in the area of the Michigan Community Health Project. Just what form it will take cannot be predicted at this time. A fact that should not be overlooked is that much parent education is going on under the various forms of adult education which are being sponsored by federal, state, and local agencies. Of major importance in this field is the program of extension work sponsored by the Michigan State College of Agriculture and Applied Science through the county agricultural agents.

TRAINING LEADERS FOR YOUTH ORGANIZATIONS

From time to time the W. K. Kellogg Foundation has assisted local youth organizations in sponsoring courses for training leaders. The various youth organizations, such as Boy Scouts, Girl Scouts, Girl Reserves, Campfire Girls, and 4-H Clubs, make many worthy contributions to the education and well-being of children, and the founda-

tion assists these organizations by providing leadership courses and by giving limited financial assistance on projects affecting children directly.

LIBRARY SERVICE

In the Battle Creek office of the W. K. Kellogg Foundation a library is being developed which will be kept reasonably up to date with materials in the fields of medicine, dentistry, education, psychology, public health, nursing, and such other fields as relate to the program of the organization. Any of the books in the library are available to persons in the area on a two-weeks loan basis. A request on a penny post card will bring the book by mail to the interested person. At the end of the loan period the borrower must pay the return postage or somehow deliver the book back to the library. Films and slides are also available on a similar loan basis. This library service obviously cuts across all the educational activities previously enumerated and operates as a subtle, yet ever-present, educational force.

STAFF IN-SERVICE TRAINING

An anomalous situation would exist if the idea of continuous educational growth were applied to all groups in a community but not to the staff of the foundation. The importance of having its own staff continuously sensitive to new developments in all related professional fields is sensed very keenly by the foundation. To this end the organization subscribes to sixty-five professional magazines, which are circulated regularly in the eight units (Battle Creek office and the seven county health departments) so that all employees of the foundation may have access to them. Each year each member of the staff attends one or more of the important conventions of such organizations as the American Public Health Association, Michigan Public Health Association, state and national medical and dental associations, state and national educational associations, and state and national organizations of public-health nursing.

Each year a week's seminar is held at the Battle Creek office for the family health counselors and other interested staff members. Persons of national prominence in various fields relating to this program are called in for lectures and round-table discussions. In 1935 the sanitary engineers spent one week visiting and observing the

work in public sanitation carried out by several of the leading health departments in Michigan. They also spent some time at Michigan State College of Agriculture and Applied Science. Usually as many members of the staff as possible attend the short courses, institutes, and local conferences at which persons of prominence in their respective fields give talks and lead discussions. Naturally, the library service is most immediately available to the members of the staff.

SUMMARY

A brief report such as is here possible can do little more than to give an overview of the educational activities which the W. K. Kellogg Foundation sponsors. The educational program of the camp schools has been mentioned only briefly. The special classes and the experimental program in pupil classification and promotion being carried on at the Ann J. Kellogg School, a Battle Creek public school, have not been described. Neither has any mention been made of the financial assistance which has been given toward the construction of consolidated schools in the area.

No doubt there are many fruitful avenues for education in the Michigan Community Health Project which have so far been overlooked. It is hoped that sufficient ingenuity can be brought to bear on the program so that every available channel will be utilized, educationally and otherwise, to achieve the objective, namely, the health, happiness, and well-being of children. Limitation of funds prevents undertaking this program on an unlimited scale. It is hoped that out of the Michigan Community Health Project there may develop experiences which will be worth describing in published form so that they may be suggestive and helpful to other areas and communities.

SELECTED REFERENCES ON KINDERGARTEN- PRIMARY EDUCATION

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The selected references in this fourth annual list of publications appeared during the period from January 1, 1935, to January 1, 1936. The trends noted in last year's compilation appear to continue but with some modifications. Studies of growth, pupil adjustment, conditions of learning, curricular content, and non-promotions are tending to emphasize the need of a unified program of early childhood education. The titles chosen for this year's list follow the general groupings used in the previous lists: (1) general educational aspects; (2) organization, techniques, and curriculum; (3) investigations and experimental studies.

GENERAL EDUCATIONAL ASPECTS¹

169. BODE, BOYD H. "The Next Step in Education," *Journal of Home Economics*, XXVII (October, 1935), 487-89.
Calls attention to basic changes in various areas of life and sets forth needs of "new orientation" in education.
170. DOUGHTON, ISAAC. *Modern Public Education*. New York: D. Appleton-Century Co., Inc., 1935. Pp. xx+730.
Purposes to integrate history and philosophy of education into one treatment, with major emphasis on philosophy which is "child centered."
171. ERNSTENE, A. CARLTON. "Heart Disease in Childhood," *Childhood Education*, XI (February, 1935), 209-10.
Describes symptoms and causes of defective hearts in early childhood. Suggests prophylactic measures that can be employed by schools.
172. GAW, FRANCES. "Keeping the Normal Child Normal," *National Parent-Teachers Magazine*, XXX (November, 1935), 6-7, 28, 30-31.

¹ See also Items 340, 343, 345, and 353 in the list of selected references appearing in the September, 1935, number of the *Elementary School Journal*; Items 476, 487, and 491 in the October, 1935, number; Items 568 and 601 in the November, 1935, number; Item 663 in the December, 1935, number; and Items 158 and 162 in the March, 1936, number.

- Calls attention to the need of safeguarding the normal child from various handicapping influences and points out that the methods for thus aiding the normal child are in general the same as those for helping the handicapped child.
173. KILPATRICK, WILLIAM H. "Inclusiveness and Continuity in Educational Progress," *Childhood Education*, XI (June, 1935), 387-95.
Discusses the kind and the degree of inclusiveness and continuity of study needed to achieve an integration of learning. Considers the following aspects: "What Constitutes Desirable Child Growth," "Two Main Characteristics of Growth," "Behavior and Its Biological Analysis," "How Thinking Is Learned," "The Fallacy of Learning by the Logical Order," "Principles of Guidance."
174. LANE, ROBERT HILL. "The Junior School—Its Plan and Purpose," *Proceedings of the National Education Association*, LXXIII (1935), 381-82.
Discusses problems of legislative enactment, financial support, and administrative procedures of a "junior school," "which will enrol children from nursery age up to the age when children have mastered the mechanics of reading . . . an upper limit of say ten years of age at the outside."
175. "Long Time Planning in Early Childhood Education," *California Journal of Elementary Education*, III (May, 1935), 196-97.
Calls attention to the initiation of committee work for formulating a program of unified educational services for early childhood.
176. MEEK, LOIS HAYDEN. "The Relation of Family and School Life in the Education of Children," *Teachers College Record*, XXXVI (January, 1935), 271-78.
Points out definite functions pertaining to the care and guidance of children which necessitate a connection between home and school.
177. NATIONAL EDUCATION ASSOCIATION, LEGISLATIVE COMMISSION. *School Legislation Affecting Young Children*. Washington: National Education Association, 1935. Pp. 32.
Prompted by growing public and professional interest in early childhood growth, representatives of three organizations (Association for Childhood Education, National Association for Nursery Education, and the Department of Kindergarten-Primary Education of the National Education Association), with the assistance of the Research Division of the National Education Association, present the essential "next steps" under four major headings: (1) "The Needs of Early Childhood as the Basis for Legislation," (2) "Principles Underlying State Legislation Affecting the Education of Young Children," (3) "An Analysis of State Legal Provisions," and (4) "State Activity for Good Legislation." Gives a bibliography of sixteen titles.
178. REDEFER, FREDERICK L. "The Underlying Philosophy of the Activity Movement," *Educational Outlook*, X (November, 1935), 1-7.
The author believes that the basic philosophy of the activity movement draws structural lines from many related fields. Two of these, activity and freedom, have significance only as they enable children to face reality and to think and act accordingly in shaping their destinies.

179. SMITH, HENRY LESTER, and NOFFSINGER, FOREST RUBY. *Bibliography of School Buildings, Grounds and Equipment*, Part IV. Bulletin of the School of Education, Indiana University, Vol. XI. No. 2. Bloomington, Indiana: Bureau of Co-operative Research, Indiana University School of Education, 1935. Pp. 216.

A bibliography of equipment for kindergarten and primary schools is given on page 100.

180. WASHBURN, CARLETON. "The Challenge of Childhood: The Educator's Response," *Mental Hygiene*, XIX (January, 1935), 47-58.

Summarizes and interprets ways in which the Winnetka Plan provides a child with outlets for his energies and with opportunities for participation in the activities, thoughts, and feelings of a social group.

ORGANIZATION, TECHNIQUES, AND CURRICULUM¹

181. ANTON, WILLADENE. "Types of Report Cards in Use," *School Executives Magazine*, LIV (July, 1935), 332-33, 346.

Summarizes newer developments in school reports to parents and stresses tendency toward increased emphasis on factors of pupil adjustment.

182. ARBUTHNOT, MAY HILL. "Some Criteria for Judging Stories for Children," *Childhood Education*, XII (November, 1935), 65-72.

Evaluates stories for children on the basis of eight criteria.

183. *Art for Today's Child*. Bulletin of the Association for Childhood Education. Washington: Association for Childhood Education, 1935. Pp. 32.

Sets forth a plan for art guidance in early childhood as presented and illustrated by nine speakers participating in a group discussion at the Nashville convention of the association in 1934. A bibliography of fifteen titles is given.

184. BEEBE, ELINOR LEE. "Entering Kindergarten and What It Means to the Child," *Childhood Education*, XII (October, 1935), 23-28.

Points out major adjustments that the child must make upon entrance into kindergarten. Analyzes such factors as change from home to new surroundings, shift to ordered and controlled routine, change in adult authority, demand for greater language facility, and need for establishing a place for himself in a large group.

185. BERKELEY, CALIFORNIA, PUBLIC SCHOOLS. "The Kindergarten and Reading Readiness," *American Childhood*, XX (April, 1935), 7-9, 40.

¹ See also Items 351 and 363 in the list of selected references appearing in the September, 1935, number of the *Elementary School Journal*; Items 383, 384, 390, 392, 394, 395, 402, 409, 412, 420, 424, 444, 445, 463, 466, 485, and 489 in the October, 1935, number of the *Elementary School Journal*; Items 516, 517, 519, and 522 in the November, 1935, number of the *Elementary School Journal*; Items 24 and 39 in the January, 1936, number of the *School Review*; and Items 163 and 164 in the March, 1936, number of the *Elementary School Journal*.

Lists objectives in providing for reading readiness in kindergarten and gives in detail activities, materials, outcomes, and techniques for achieving these objectives.

186. BOBBITT, FRANKLIN. "Advancing toward the Activity Curriculum," *Childhood Education*, XI (January, 1935), 147-51.
Analyzes the basis of the activity curriculum by tracing seven major stages in curricular development.
187. BROWN, GRETTA M. "Progressive Primary Education," *Chicago Schools Journal*, XVI-XVII (March-December, 1935), 75-80.
Discusses modern educational principles and teaching procedures in primary schools. Stresses the function of integration in character-training and in the learning of fundamental social skills—reading, number, and language.
188. HANNA, PAUL R. "Romance or Reality: A Curriculum Problem," *Progressive Education*, XII (May, 1935), 318-23.
Contrasts conservative, or romantic, approach with that of progressive, or realistic, approach to curriculum reorganization.
189. HILDRETH, GERTRUDE. "Number Readiness and Progress in Arithmetic," *Journal of Experimental Education*, IV (September, 1935), 1-6.
Arithmetic-readiness tests were administered to two entering first-grade groups. Later, diagnostic achievement tests were given to determine typical arithmetical learning of the same groups at the second- and the third-grade levels. Tests seem to have prognostic value for the selection of the poorest and the best learners. Author suggests the need for more extensive investigations of initial stages in number-learning and number readiness.
190. HORN, JOHN LOUIS, and CHAPMAN, THOMAS WHITE. *The Education of Children in the Primary Grades*. New York: Farrar & Rinehart, Inc., 1935. Pp. x+292.
Formulates an organized set of principles for the first steps in formal education and covers in detail the work of the first three grades.
191. LANGDON, GRACE. "A Challenge to Thinking," *Childhood Education*, XI (January, 1935), 160-62.
The third article in a study of similarities and differences found in a survey of teaching in nursery school, kindergarten, and Grade I. Analyzes responses of 1,624 teachers at the three levels who checked relative frequency of performance of teaching acts listed in a check sheet.
192. MOORE, ANNE CARROLL. "Recoiling from Reading: A Consideration of the Thorndike Library," *Library Journal*, LX (May 15, 1935), 419-22.
On the basis of data collected by children's librarians, the author questions the desirability of word-changing and reconstruction of sentences at the cost of beauty, humor, sound of words, and the sense of their inner meaning, as has

been done by Thorndike in the following stories: *Pinocchio*, *Heidi*, *Black Beauty*, *The Water Babies*, *Andersen's Fairy Tales*, *A Wonder Book*, and *The Little Lame Prince*. Believes such revisions of classics are not justifiable even for "low-level readers."

193. READ, HELEN SUE. "Problems of the Supervisor of the Primary Grades in a Progressive Public School Situation," *California Journal of Elementary Education*, III (May, 1935), 220-25.

Treats specific problems—control, co-operation, and the problem of in-service training for teachers untrained for kindergarten-primary work. Discusses values of subject-matter background, industrial-arts techniques, selection of suitable literature and music, development of pupils' creative efforts, and guidance of class-discussion periods.

194. SIMPSON, MABEL E. "Pupil Progress in Terms of Continuous Growth," *Education*, LV (May, 1935), 526-29.

Advocates four promotional units to replace present grade system: kindergarten-primary unit (four-year period), elementary grades (three-year unit), junior high school (three years), and senior high school (three years). Attempts to base promotion from one unit to the next on readiness instead of fixed periods of time spent in each group.

195. STONE, CLARENCE R. "The Current-Experience Method in Beginning Reading," *Elementary School Journal*, XXXVI (October, 1935), 105-9.

Points out certain limitations in the current-experience method of teaching reading due to inadequacy in meeting variations in rate of learning, to difficult content, to use of extensive vocabulary, to insufficient repetition of basic vocabulary, and to restriction of reading to interests integrally related to other school activities.

196. YAGEMAN, LYNDA. "Should All First Grade Children Be Given a Reading Program?" *California Journal of Elementary Education*, III (February, 1935), 158-64.

Treats school failures as related to first-grade reading and discusses the psychological, philosophical, and theoretical considerations of reading readiness. Refers to actual investigations that show importance of readiness in the success of beginners.

197. ZIRBES, LAURA. *Curriculum Trends*. Bulletin of the Association for Childhood Education. Washington: Association for Childhood Education, 1935. Pp. 40.

Summarizes "The Development of the Curriculum for Social Understanding" and presents the following analyses of additional trends: "Educational Changes as Indices of Curriculum Trends," "An Analysis of Educational Magazines for Reference to Changes and Transitions," "Changes and Trends Reflected in Professional Books of Recent Publication," "A Field Study," "Quotations and References for Study and Discussion," and "Conclusions."

INVESTIGATIONS AND EXPERIMENTAL STUDIES^{*}

198. CONARD, EDITH UNDERWOOD. "A Study of the Influence of Manuscript Writing and of Typewriting on Children's Development," *Journal of Educational Research*, XXIX (December, 1935), 254-65.
Reports a study carried on with 150 second-, third-, and fourth-grade pupils to determine comparative influence of manuscript writing and typewriting on classroom learning. Results seem to indicate that typewriting favorably influences creative writing and also stimulates quality and speed of handwriting.
199. COOPER, IDA M. "A Comparative Study of the Organization for Teaching of Ten Beginning Reading Systems," *Journal of Educational Research*, XXVIII (January, 1935), 347-57.
Presents an analysis of ten reading systems from the point of view of underlying philosophies, objectives, accessory materials, size of vocabularies, word-repetition, phonics, and remedial measures. Summarizes common trends.
200. DAVIDSON, HELEN P. "A Study of the Confusing Letters, *b*, *d*, *p*, and *q*," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVII (December, 1935), 458-68.
Reports results of a letter-perception test given to 159 kindergarten and first-grade pupils. With one exception all errors fell into two groups, reversals and inversions.
201. HILDRETH, GERTRUDE H. "Diagnostic Tests for Beginning Reading," *Educational Method*, XIV (April, 1935), 373-79.
Describes test series devised to detect first signs of success or failure in beginning reading. Finds that tests discriminate differences in ability among children who fail to score on Detroit Word Recognition Test.
202. HOCKETT, JOHN A., and NEELEY, DETA P. "Selecting the Next Primer," *California Journal of Elementary Education*, III (May, 1935), 199-206.
To determine relative difficulty of the books and selection of appropriate subsequent books to follow basic primers, analyzes the vocabulary load and the ratio of new words to total material in ten primers most widely used in California cities.
203. LEWERENZ, ALFRED S. "A Vocabulary Grade Placement Formula," *Journal of Experimental Education*, III (March, 1935), 236.
Describes a check sheet containing the five hundred most important words in English and shows how samplings of one thousand running words from a given book may be checked for difficulty, diversity, and interest. Reports reliability of grade placement as .93.
204. MACLATCHY, JOSEPHINE H., and VAN NEST, MILDRED. "Activities in the Nursery School, Kindergarten, and Elementary Grades," *Special Meth-*

^{*} See also Items 372 and 376 in the list of selected references appearing in the September, 1935, number of the *Elementary School Journal*; Items 396, 400, 410, and 449 in the October, 1935, number; and Items 560 and 564 in the November, 1935, number.

ods and Psychology of the Elementary-School Subjects, pp. 4-13, 89-93. Review of Educational Research, Vol. V, No. 1. Washington: American Educational Research Association of the National Education Association, 1935.

Reviews the literature from October, 1931, to July, 1934, on activity "as a way of learning" in relation to (1) habits of personal care; (2) development of social behavior; (3) uses of art materials, books, and music; (4) play; and (5) learning of language and subject matter. Includes a bibliography of 105 titles.

205. OTTO, HENRY J., and MELBY, ERNEST O. "An Attempt To Evaluate the Threat of Failure as a Factor in Achievement," *Elementary School Journal*, XXXV (April, 1935), 588-96.

Reports a control-group experiment carried on in Grades II A and V A to determine the effect on pupils of the constant threat of not "passing" as compared with the effect of an assurance that all would be promoted.

206. RECKLESS, WALTER C. (Editor). "Child Development and Sociological Research," *Journal of Educational Sociology*, IX (October, 1935), 65-128.

Presents a number of articles in the field of child development that deal with subjective and objective methods of sociological research, sociological study of infancy and early childhood, and research projects.

207. ROACH, CORNELIA BELL. "A Discussion of the Six, Seven, and Eight Year Levels of the Stanford-Binet Scale," *Journal of Educational Research*, XXIX (November, 1935), 216-18.

Analyzes Stanford-Binet test performances of 254 five-year-old children to determine what variations exist in the lower age levels. "Data seem to indicate that certain tests in Years 6, 7, and 8 might well be interchanged or replaced with other tests that are not so closely connected or associated with the activities of the school."

208. STONE, CLARENCE R. "The Second-Grade Reading Vocabulary," *Elementary School Journal*, XXXV (January, 1935), 359-67.

A study of the vocabularies of sixteen second-grade readers containing approximately 3,200 new words. Lists 1,276 words appearing in three or more books. Suggests use of this list as standard for Grade II until later research yields more refined criteria.

209. UHRBROCK, RICHARD STEPHEN. "The Vocabulary of a Five-Year-Old," *Educational Research Bulletin*, XIV (April 17, 1935), 85-97.

Describes a method of obtaining an estimate of a child's total vocabulary by means of a dictaphone. Reports a study of the vocabulary of a five-year-old child whose 24,000 dictated words contained 1,457 different words.

210. WENGER, M. A., and WILLIAMS, HAROLD M. "Experimental Studies of Learning in Infants and Preschool Children," *Psychological Bulletin*, XXXII (April, 1935), 276-305.

Reviews experimental studies on learning with young children under the following topics: conditioning of emotional and affective responses, skill, associative

learning, discriminative learning, problem-solving, and factors affecting learning. A bibliography of ninety-nine titles is given.

211. WRIGHTSTONE, J. WAYNE. "Measuring 'Intangibles' in Progressive Schools," *Progressive Education*, XII (February, 1935), 95-97.

Reviews techniques being used for appraisal of personal and social conduct of pupils under progressive and conventional teaching practices. Discusses investigations using "time-sampling techniques," "controlled-observation techniques," and "observational studies." Reports the recent use of the "observational technique" to define such trait actions as initiative, work spirit, reliability, co-operation, courtesy, and worthy group membership.

212. WRIGHTSTONE, J. WAYNE. "Achieving Skills in Progressive Primary Schools," *Educational Method*, XV (October, 1935), 35-38.

Compares test achievement of two equated groups in a primary school. One group was taught by "newer-type activity practices" and the other by traditional procedures.

213. WULFING, GRETCHEN. "Maturation as a Factor in Learning," *California Journal of Elementary Education*, IV (November, 1935), 72-84.

Reviews forty-four studies relating to maturation in terms of three questions: (1) What have psychology and biological sciences contributed to our knowledge of maturation? (2) What have studies in reading and arithmetic indicated to be the proper time to begin teaching these subjects? (3) What further research in this field would be valuable to education?

Educational Writings

REVIEWS AND BOOK NOTES

Problems in learning as the core of an introductory educational psychology.—The volume under review¹ treats a somewhat broader field than its principal title suggests; some may feel that the subtitle, contrariwise, is too inclusive. There can be no question that the experimental literature on learning is *a*, if not *the*, proper approach to the study of educational psychology. The author's statements in the Preface of this book make clear his views as to the major content of a first course in the psychology of education. This textbook has been planned as an introductory course for advanced undergraduate students of education or as a graduate course in psychology in the field of learning.

Davis has made no attempt to systematize the facts of learning around any single theoretical position. He presents the rival theories in a critical manner, but the student is left the task of selecting his own systematic position. The problem attitude is the hope of the author, and he has succeeded unusually well.

The earlier chapters are, in content, about what one would expect, for example, the objectives and methods of educational psychology, the bases of improvement, neurological considerations, various kinds of learning, permanence of learning, transfer and interference, incentives and interests, etc. Less anticipated, and reflecting the author's interests in the training of teachers, are such topics as guidance techniques, methods of study, measurement of achievement, and the relations of mental and physical traits. The inclusion of a section on guidance, for example, in view of the largely unscientific nature of the literature on this important issue, might have been expected to prove no asset to the volume. This danger has been obviated by the author by his decision to confine the discussion to a few considerations for which there is reasonably adequate experimental support. The inclusion of a chapter on the measurement of achievement in the school subjects surely needs no defense in a book which will probably be read largely by educators. There may be an overemphasis, in point of space, on such a doubtful measure as the achievement quotient; at the same time, as Jordan suggests in his Foreword, both the advantages and the limitations of such quotients are fairly stated and there is no special pleading on the part of the author.

¹ Robert A. Davis, *Psychology of Learning: A Textbook in Educational Psychology*. New York: McGraw-Hill Book Co., Inc., 1935. Pp. xii+490. \$3.00.

In comparison with the more traditional textbook in educational psychology, this volume may be said to place relatively small emphasis on the inherited nature of man and on individual differences. The restriction of the first-mentioned topic seems to be in line with modern tendencies in teaching. The reviewer feels that the volume would not have been weakened by expanding the citations to the literature on individual differences.

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G. M. RUCH

A functional educational psychology.—For fifteen years after the appearance of Thorndike's three-volume *Educational Psychology* (and the accompanying briefer course), textbooks in the field were dominated by the vigor and originality of that work. Only within the last three or four years have departures from that model become common. The book under review* is an example of such departure. There is less specific emphasis on original nature as distinct from learned response; "instinct" does not appear in the index. The authors regard "the so-called 'laws of learning' . . . as having been prematurely and unwarrantably fixed" (p. iv). The distinctively Thorndikian terminology has almost entirely disappeared.

The authors consider educational psychology to have a central and basic position in any program of teacher training. The first paragraph of the Preface mentions Peik's findings that teachers in service placed educational psychology first of the professional courses for "helpfulness in educational thinking." In accordance with recent trends, the organization of the book tends to be as much practically functional as logical. Thus, the chapter after the introduction deals with "Reading and Study Habits." A chapter on statistics follows, then a chapter on "Basic Principles of Measurement," with chapters on "Aptitude Tests," "Educational Achievement Tests," and "Measurement of Interests, Attitudes, and Other Personality Traits" next in order. Later come chapters on "The Intellectually Gifted Child," "The Subnormal Child," and "The Maladjusted Child." There is a healthy emphasis on the importance of classroom experimentation with actual subject matter as compared with laboratory experimentation on graduate students with nonsense syllables. Sensitive to recent work, the authors include a chapter in the field of "Aesthetics in Education."

There is a desirable skepticism about much of the research in learning. Thus, the authors mention that "the results of learning experiments are unfortunately limited in their application because so few of them have dealt with complex classroom situations" (p. 309). They also emphasize another point more often neglected:

Another limitation of previous studies involving modifications of behavior in a school situation arises from the fact that such studies have dealt largely with data for groups. Certain principles have been formulated and procedures established with the assumption

* Alvin C. Eurich and Herbert A. Carroll, *Educational Psychology*. Boston: D. C. Heath & Co., 1935. Pp. viii+436. \$2.24.

tion, in most instances, that what seems effective for the group as a whole will also be effective for a given individual. But, as the evidence concerning individual differences accumulates, it becomes more and more clear that a particular situation set up to produce a specified change may modify the behavior of a given pupil in one direction, of another pupil in a different direction, and have no effect whatsoever on a third pupil [p. 310].

There is no attempt to "characterize the nature of the learning process in terms of what takes place in the nervous system," since, quoting Lashley, "it is doubtful that we know anything more about the mechanism of learning than did Descartes when he described the opening of the pores in the nerves by the passage of animal spirits" (p. 311). All this may be confusing to the beginning student. The book might perhaps have been organized positively in a fashion somewhat more serviceable for him, but the critical attitude is desirable and emphasis on the individuality of the learning situation should be very healthy from the point of view of teaching.

The arrangement of the material is simple and clear. Each chapter begins with a series of questions and ends with a consistent summary. In short, the book may be described as a straightforward modern textbook in the field, carefully planned with reference to classroom use. The reviewer would like to see more emphasis on problems of social development, and he cannot agree with the authors that present ignorance regarding the emotions is such as to warrant a comparative neglect of problems of emotional adjustment. By and large, however, the book may be considered a worth-while effort toward a more distinctive and functional educational psychology.

SIDNEY L. PRESSEY

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An experimental investigation of the motivation of learning.—One of the important problems in the field of the psychology of learning relates to the motivating influences of various kinds and amounts of aftereffects, such as rewards and punishments. The problem of motivation has a twofold aspect. First, there is the question of the influence of aftereffects on a learner's attitude toward a total learning situation and, second, there is the more narrow problem of the influence of aftereffects on a particular item of learning with which a reward or a punishment has been directly associated. The monograph under review¹ reports the results of an experimental attack on the latter problem.

The study dealt with the specific problem of "the determination of the relative influence upon learning of varying amounts of reward and of punishment given as aftereffects to particular connections in learning situations" (p. 1). The investigation included three separate experiments. In the first both reward and punishment were varied; in the second and the third the reward was varied but the punishment was kept constant.

¹ Robert T. Rock, Jr., *The Influence upon Learning of the Quantitative Variation of After-Effects*. Teachers College Contributions to Education, No. 650. New York: Teachers College, Columbia University, 1935. Pp. xii+78. \$1.50.

The first two experiments involved learning a code consisting of eighty items; the last was concerned with learning forty different tasks or items in ball-tossing. Each learner was given a number of trials with each list of items during a single learning period, the repetition of any one item being first preceded by the presentation in rapid succession of a large number of other items. A response to an item was followed at once by some form of reward or punishment, the nature of which was determined by the quality of the response.

The reward consisted either in the announcement that the response was "right" or, in addition, in the presentation of a small money award. The punishments used in the first experiment consisted either in the statement that the response was "wrong" or, in addition, in assessing a small money penalty, the former being used also in the last two experiments in keeping punishment constant. The money award or penalty was varied in amount from one-tenth to eight-tenths of a cent.

The experimenter is to be commended for the thorough-going manner in which he conducted his investigation. A total of 325 subjects were included in the three experiments, 75 being boys and girls eleven and twelve years of age and the remainder being graduate students. All subjects except the children were paid for the time spent in participating in the experiment in addition to being given the cash rewards. The total rewards earned amounted to almost two hundred dollars, and the total time spent in collecting the data for the study was more than three hundred hours. The data were subjected to an exhaustive analysis, and the results were thoroughly examined to determine their statistical significance.

In general, variation of the reward did not result in significant differences in the effects on learning, and the only significant difference found in the effects of the various punishments on the elimination of wrong responses was a slight advantage in favor of money penalties over the mere statement that a response was wrong. The investigation also showed that rewards were much more effective for learning than were punishments and that additional punishments for successive repetitions of erroneous responses increased rather than decreased the probability that such responses would recur.

These results, together with the fact that the maximum reward used in any experiment was less than one cent, raise the question whether the subjects actually derived significantly greater degrees of satisfaction from a large reward than they did from a small one. In the absence of such a difference the variation of the aftereffect would not have any significance to the learner; it would be an objective fact only and consequently could not be expected to result in differences between the influences on learning of various amounts of reward or punishment. This fundamental matter was given but little attention in the report of the study. The experimenter also dealt only briefly with the significance of his results, his only attempt at interpretation consisting in a brief reference to the relation of his conclusions to Thorndike's "acceptance" or "confirmatory" hy-

pothesis as to the influence of aftereffects. Despite these limitations, however, the results, as well as the technique of the investigation, should be very useful to those who undertake further study of the fundamental problem of motivation.

EDWARD F. POTTHOFF

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A view without a point of view.—It is a healthy sign that the historical background of education is coming into its own once more. The publication of Eby and Arrowood, *The Development of Modern Education* (New York: Prentice-Hall, Inc., 1934), is bound to make some difference in the present low estimate of the place of the history of education in the preparation of teachers, and Doughton's book¹ should serve to reinforce this development. As its subtitle indicates, the book is intended "to integrate the history and philosophy of public education into one treatment, with the major emphasis upon philosophy" (p. ix).

Modern Public Education serves the purpose of *describing* the nature and the origin of the basic points of view in education today as Bode's *Modern Educational Theories* (New York: Macmillan Company, 1927) performed a distinctive service in *critically evaluating* them. These two books will make a good combination in courses which bear such titles as "Modern Educational Theories" provided that the student is properly warned of the shortcoming of *Modern Public Education* indicated below. There is a difference between the two books, however: in Bode's book the basic points of view are treated as conflicting and in Doughton's book they are regarded as aspects of the same and more general point of view.

As one reads Doughton's book, one is given the impression that the author supports all points of view, the result (seemingly) being oscillation and eclecticism. Statements which distinctly support Dewey appear in one paragraph, and in the next paragraph or sentence Bobbitt is much in evidence. In one place the author gives evidence of concern for the effective provision for a changing social order, and in the next section he supports the behavioristic theory of conditioning the child so that he will behave specifically in "desired ways." In some places the author expounds independent thinking, only later to advocate indoctrination. On the question of the relation of freedom and discipline, Doughton pays homage to both Bagley and Dewey, whose diametrically opposed views on this issue are well known. The following are typical statements (the italics are not in the original).

I. DEWEY OR NOT DEWEY?

[*Supporting Dewey.*] In our study we have defined education as a process of development which goes on in the individual human being as a result of his activity in and his reaction upon the environment and which, by *giving enriched meaning* to experience,

¹ Isaac Doughton, *Modern Public Education, Its Philosophy and Background: New Social Responsibilities of the Schools in a Democracy*. New York: D. Appleton-Century Co., Inc., 1935. Pp. xx+730. \$2.75.

increases his power to direct subsequent experience [p. 691]. [Each section of the book is introduced by a quotation from Dewey.]

[*Supporting Bobbitt.*] Formal and organized education is fundamentally the means which has been designed by the whole social group to influence the behavior and guide the development of children, *in order that they might function effectively as adult members of the social group* [p. 692].

There can be no disputing the statement . . . from Bobbitt. The issue in current discussions of education is not over the fact of preparation for participation in the activities of the adult world, but rather over the best method of effecting this preparation [p. 51].

II. MECHANISTIC OR ORGANISMIC, WHICH?

[*Supporting the mechanistic conception of behavior.*] It is possible to *predict and control the behavior of human beings* by the same general methods as those exemplified in prediction and control of the behavior of natural energies [p. 692].

[*Stressing the organismic concept of behavior.*] The end product of this process [education], as of all natural processes, is a state of equilibrium, that is, equilibrium between the inner world of desire and the outer world of possibilities and impossibilities. This we have called the wholesome personality [p. 691].

III. INDOCTRINATION OR INDEPENDENT RECONSTRUCTION— WHICH WAY EDUCATION?

[*Supporting the ideal of independent reconstruction.*] It has been the thesis of this book that democracy has nothing to fear but very much to gain in the inurement of its children in critical judgment and discriminating choice of procedures in terms of consequences; in the development of responsibility in its citizens for all consequences that may follow upon any course of action so far as their insight and power may extend; and reasoned faith in expert judgment, but stern and exacting expectation of socially desirable consequences from experts, where personal knowledge cannot suffice. Thus democracy is not a form of government so much as an effective manner of group living [p. 695].

[*Showing decided leanings toward indoctrination in speaking of the prediction and control of human behavior through education.*] This involves three factors: (1) a knowledge of the nature of these human beings and the conditions under which they will behave in the *desired ways*; (2) an ability to control the environment in such a manner as to influence these human beings in these *desired ways*; (3) an ability to stimulate these human beings to activity within this environment [p. 692].

We have emphasized teaching as guidance of the growth of personality through manipulation of the environment wherein purposeful activity of children shall be stimulated and directed. Now the prime qualification of a guide is that he knows the way he taketh [p. 697].

The tendency toward oscillation and eclecticism is only too common in education as is shown by Francis E. Peterson in his study on *Philosophies of Education Current in the Preparation of Teachers in the United States* (Teachers College Contributions to Education, No. 528. New York: Teachers College, Columbia University, 1933). In fact, it may be maintained, with some justification, that Dewey himself, whose philosophy is the keynote of Doughton's book, is, at least on the surface, subject to the charge of oscillation and eclecticism. There is

no education theorist in America, whether conservative or radical, who does not quote from Dewey's writings and, at least by implication, claim agreement with his views. *Democracy and Education* seems to be much like the Bible, which, as a cynic is said to have remarked, "the devil can cite for his purpose."

The discussion of the origin of the four points of view which constitute the subject matter of Doughton's book is excellent, perhaps one of the best on record. The treatment of the organic concept of behavior in relation to the child-centered philosophy is an admirable contribution to the subject, as is the treatment of personality. The reviewer has no hesitation in recommending the book to students of education who wish to enlighten themselves on the origin and the development of four of the major contemporary points of view in education, namely, (1) "the child-centered point of view," (2) "the scientific point of view," (3) "the social point of view," and (4) "the personalistic point of view."

PEDRO T. ORATA

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Race problems and educational administration.—Since school law has only recently been recognized as a fertile source of materials for educational research, new studies in this field are of particular interest. A study of the legal aspects of the problems relating to the separation of races in the public schools has been completed at Temple University.¹

Early in Risen's report he points out that racial prejudice is not on the decline and that changing conditions have often tended to intensify racial dissension. For many years racial segregation was almost entirely a southern problem, but following 1910 such a large migration of negroes northward has taken place that this situation has changed. There is no unanimity of opinion as to how this problem should be solved. Educators facing it must develop their own policies and prepare their own plans, based on existing constitutional, statutory, and common-law principles.

The purpose of this study is to discover "those issues, pertinent to separation of races in public schools, that have been legislated upon by lawmaking bodies or adjudicated by the higher courts of the United States and the several states" and to enumerate and summarize "the various legal principles laid down by the courts in their decisions, so that the educator may know what the judiciary has said with reference to the problem" (p. 5).

The report is divided into five parts: (1) introduction; (2) quotations from various state and federal constitutions and statutes pertinent to the problem under consideration, together with the author's comments on each; (3) an enumeration and a discussion of legal principles derived from an analysis of court decisions; (4) briefs of the leading state and federal cases relating to the separation of races in public schools; and (5) summary and conclusions. A classified bibliography and a table of cases are also included.

¹ Maurice L. Risen, *Legal Aspects of Separation of Races in the Public Schools*. Philadelphia: Temple University, 1935. Pp. 142.

As a result of his investigation the author arrives at certain conclusions concerning the laws. He finds, among other things, that the negro is not alone in being affected by separation laws but that Indians, Chinese, Mongolians, Moors, and Eskimos are also affected. He also finds that ten states forbid race separation in the public schools, eighteen make it mandatory, four states have laws permitting it, and fifteen are silent on the matter. Congress, with power over education in the District of Columbia and in the territories, has seen fit to provide separate schools for negroes in the District of Columbia and for Indians and Eskimos in Alaska.

From his study of court decisions Risen concludes that there are certain principles which are generally accepted by the courts. In the absence of specific constitutional provisions to the contrary, the legislature has the power to pass laws compelling or allowing separation of races in the public schools, but no race may be excluded for reasons not equally applicable to all races. Where laws provide for separation, boards of education must provide equal, but not necessarily identical, facilities for both races. In the absence of a law permitting separation, a board of education may not segregate races, the board having only such power as is given it by the legislature. Where the law permits separation, however, and vests discretionary power with the board, the actions of the board in administering the law may not be challenged unless it can be shown that such actions are fraudulent or arbitrary.

This study should prove to be of interest and value to those interested in the study of race problems as well as to educators and legislators interested in those phases of educational planning affected by race dissension. It is more than an ordinary report; it is a source book as well, containing copies of pertinent laws and briefs of important cases. It is well written and well organized and gives every evidence of thorough preparation. Undoubtedly, the author has made a contribution to the fields of school law and race problems.

LEE O. GARBER

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An experiment in child nutrition.—During the past few decades it has been conclusively demonstrated in nutrition laboratories throughout the world that relatively small changes in the diets of animals used in experiment may produce profound improvement in their growth and other aspects of physical development. Though it is generally agreed that these results are in the main applicable to man, the final test must be applied to human beings. The difficulty, however, lies in the long life-span of the human being and the inability to follow results of feeding programs over sufficiently long periods to indicate significance. Nevertheless, any data gained about human beings are of distinct value.

A contribution of this type is a report of Rose and Borgeson¹ of an experi-

¹ Mary Swartz Rose and Gertrude M. Borgeson, *Child Nutrition on a Low-priced Diet: With Special Reference to the Supplementary Value of an Egg a Day*, the

ment recently carried out in a day nursery in New York City. This experiment extended over approximately a two-year period and was designed to determine the value of adding an egg a day to the diets of preschool children. Two groups of about fifty children each were paired on the basis of age and other significant factors. One group served as the control, and each child in the other group received a dietary supplement of an egg a day. A nutritionist supervised the meals at the nursery and administered the supplementary feeding. She also worked with the parents in the homes to insure their continued co-operation in the project. Measurements of height and weight were made at stated intervals. Medical and dental examinations, posture pictures, roentgen-ray pictures of the wrists, hemoglobin tests, and records of colds and digestive upsets were also utilized to assess the physical status and progress of the two groups. To check the results, a parallel study was conducted on rats reared on the same types of diets as the children (both control and experimental groups) through four generations.

The results demonstrate strikingly the difficulty in determining in human beings the result of a dietary régime over short periods. The study also shows the value of the rat-feeding experiment as supplementary evidence for human studies. For the children the only positive findings were that the hemoglobin values *tended* to be higher in the egg than in the no-egg group, and the duration of colds *tended* to be shorter in the group receiving the supplement than for the control group. The differences were not significant but were in the direction of what would logically be expected. The animal experiment, however, furnished clear-cut evidence of the value of the egg supplement. The value was evidenced by significantly better growth and better reproduction and lactation in the group receiving the egg than in the control group. The authors point out that the twenty-one months of the study on children are equivalent to but twenty-one days in the life of the rat. This period is too short to show the results of differences in diets other than the results of severely inadequate compared with adequate diets, such as bread and water versus bread and milk. To show the less severe deficiencies, such as the effect of sub-optimal intake of Vitamin A, would require a period equivalent to five years in the life of a child. It is not surprising, then, that the results of the present study were not striking.

The authors believe that the outstanding feature of the study is the evidence that good growth and development can be secured on low-cost diets (without eggs), such as can be afforded even in poorer homes, if the food is chosen with knowledge of nutritive values and administered with due regard for ease of digestion and regularity of consumption. The egg a day is regarded as an additional factor of safety.

LYDIA J. ROBERTS

An experimental study of the kinds of pictures that children prefer.—Too long have the schools been using adult ideals in choosing the pictures used for study in the primary grades. An interesting and worth-while scientific investigation has been made of children's preferences in art by Jeanette Gertrude Morrison,¹ who has given some timely information to all teachers of art, especially to those engaged in revisions of courses of study.

As a basis for her study Miss Morrison used the pictures listed for study in forty-eight courses of study and in selected books on the subject. Contrary to accepted ideas, she found that the pictures given first choice by children do not have children as the center of interest. Students of art education will be interested to note much greater powers of appreciation in the third-grade child than are usually attributed to children at that level. Definite differences in the interests of boys and girls were established.

Writers of courses of study should recognize the fact that the real likings which children have for pictures have not been recognized and that greater growth in appreciation will no doubt result if attention is given to these "likings."

Miss Morrison's procedure suggests a method of research which will be helpful to teachers and supervisors of art who wish to carry the study further.

FLOSSIE GUYER KYRAR

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An outstanding history of the last frontier.—Joseph G. Masters, principal of the Central High School of Omaha, Nebraska, in his *Stories of the Far West*,² has beyond question produced an outstanding book which will be of immense value in the intermediate grades. The material contained is unique, differing widely from the ordinary type of biographical material provided for children of Grade V. The subtitle, "Heroic Tales of the Last Frontier," indicates that the author intends to lay emphasis on the romance and adventure which characterized the exploration of the Far West by mountain men and by Astorians. The author speaks with authority. He has produced a book which clearly is based on the principal original sources. In the Foreword attention is called to the personal acquaintances that the author has had with some of the men who participated in the great events described. He quotes frequently from contemporaneous accounts, selecting interesting and graphic material drawn principally from the forty-year period which followed the Louisiana Purchase.

¹ Jeanette Gertrude Morrison, *Children's Preferences for Pictures Commonly Used in Art Appreciation Courses*. Chicago: University of Chicago Press, 1935. Pp. xii+56. \$1.00.

² Joseph G. Masters, *Stories of the Far West: Heroic Tales of the Last Frontier*. Boston: Ginn & Co., 1935. Pp. xii+298. \$0.92.

This textbook consists of 286 pages divided into nine chapters. The first chapter deals with the Louisiana Purchase and the exploration of a part of the purchased territory by Lewis and Clark. The Pike Expedition sent out about the same time by President Jefferson is unfortunately omitted. One chapter is given to a description of the prairie Indian tribes. This description goes into considerable detail, giving the names of tribes and linguistic groups and mentioning their leading chiefs and some of their principal characteristics. The other seven chapters contain material which is mainly biographical. The chapters deal with the Astorians, Old Bill Williams, Jedediah Strong Smith, the "mountain men," Joseph L. Meek, James Bridger, and Kit Carson. Each chapter consists of a series of sketches or stories describing outstanding adventures or incidents in the lives of these great figures of the early West. Some of the incidents, like the story of Madame Dorion or the story of the ship Tonquin, are dramatic in the extreme.

Stories of the Far West is a well-bound and well-printed book, capable of standing wear of school or library usage. The textbook is well supplied with no less than seventy-four illustrations. In addition, two maps show the principal routes followed by the expeditions mentioned in the text. The illustrations not only are numerous but are exceedingly well chosen. Many of them are photographs of places mentioned in the text. Some are photographs of relics and monuments connected with the stories included in the book. Many more are reproductions of drawings, paintings, or old prints, some of which are contemporaneous with the events described. Almost without exception these illustrations are new material. The book, unfortunately, does not contain an index. However, it is greatly improved by a glossary. This glossary properly explains the meaning and the pronunciation of many special terms found solely or principally in connection with the history of the Great Plains area. Under this classification are such terms as: "Apache," "Canyon de Chelly," *compadre*, "coulee," or *calabozo*. The glossary also includes a great many words which could be found in an ordinary school dictionary, such as: "facetiously," "grandiloquent," "graphic," "limpid," "intrepid," or "potent."

The history stories contained in this book will appeal especially to children who live in the Far West. Pupils in many places west of the Missouri River will find that this book contains local historical material. This textbook also should have a strong appeal to boys and girls in all parts of the country. The opening-up of the last frontier constituted one of the most romantic periods in our history. The final end of this frontier was perhaps the major event of the latter half of the nineteenth century. It would be well, then, if all children from Maine to California were familiar with the heroism and romance associated with the early exploration of the Far West.

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Educational News and Editorial Comment

A NOTABLE APPRAISAL OF SOUTHERN REGIONAL CULTURE

In 1931 the General Education Board made a special grant to the Social Science Research Council for a Southern Regional Study. The study was carried out by Professor Howard W. Odum, of the University of North Carolina. In a recent volume entitled *Southern Regions of the United States*, Professor Odum, by utilizing more than seven hundred indices and some six hundred maps and charts and tables, presents for the first time a realistic and comprehensive "picturization of the southern regional culture." So far as we are aware, no other region of the United States has been subjected to such a thorough and realistic social inventory. The following paragraphs, quoted from the first chapter, indicate something of the objectives of the study.

1. The first objective of the Southern Regional Study is to present an adequate picture, partial but representative, of the southern regions of the United States in fair perspective to time-quality, to geographic factors, and to the cultural equipment and behavior of the people.
2. It is desired further to present this picture in such ways as to indicate the place of these regions in the nation and to explain something of the dramatic

struggle of a large and powerful segment of the American people for mastery over an environment capable of producing a superior civilization, yet so conditioned by complexity of culture and cumulative handicaps as to make the nature of future development problematical.

3. Over and above any conventional social inventory, it is important to point toward greater realization of the inherent capacities of the southern regions; and to indicate ways and means of bridging the chasm between the superabundance of physical and human resources as potentialities and the actualities of technical deficiencies in their development and waste in their use.

4. It is equally important to point toward a continuously more effective reintegration of the southern regions into the national picture and thereby toward a larger regional contribution to national culture and unity. To this end, it is important to make available and to reinterpret to special groups and to the public in general, within and without the regions, and in as many ways as possible, the facts basic to the understanding of the situation and to the planning of next steps.

The problems of education in the southern regions are subjected to critical analysis and interpretation. We quote the following paragraphs from the section entitled "The Education of the People."

Perhaps the best framework around which to project the principal specific inventories may be found in three general conclusions. The first is that the region measured by any absolute standards has made great strides in its educational endeavors, increasing its quantitative achievement a hundredfold, straining its financial capacities to the limit, and making distinctive contributions in creative effort. The second is that, nevertheless, the region now ranks lowest of all the regions in most aspects of its educational equipment and work. It does not, therefore, develop its students nor equip them equally for the competitive work of the nation and its regions. The third is that its catalogue of deficiencies represents the logical product of certain distinctive regional conditions, other than those already implied in cultural backgrounds, chronological lag, and rural economy. One of these is the basic load which is measured by the largest proportion of children of school age to the total population alongside the smallest income and wealth with which to educate them. Thus, the burden of supporting schools on a property tax in a poor state with a large ratio of children may be more than ten times as heavy as for a rich state with fewer children. Important also is the dual load of a regional dichotomy of education. The chief phase of this dual load is that relating to negro and white and applies to all education, from the lowest to the highest schools, as well as to libraries, playgrounds, and other cultural agencies. For institutions of higher learning the dichotomy of separate institutions goes further: for negroes and whites; for men and women; for technical and liberal training; and all along the line, public and private. This handicap is accentuated by the further multiplicity of institutions representative of religious denominations within and without the region and of

political and geographical subregions within the various states. Out of these arrangements have grown certain distinctive contributions, but also among the resulting products are overlapping duplication, competition, inadequate support, low standards, outmoded arrangements, lack of concentration of needed bodies of knowledge and services, uniform deficiencies in the techniques and tools necessary for the development and utilization of the human wealth of the region.

Turning to the first general conclusion, it is relatively easy to point up samplings of recent educational advance. First of all, the region has made extraordinary progress measured not only since Reconstruction days but compared with the last three decades, 1900, 1910, 1920. There have been notable achievements in expenditures for education, in buildings, enrolment, curriculums, not only in terms of comparison with its own early stages, but also compared with the earlier nation. Thus, with its 25,000,000 people, just a third as many as the nation's 75,000,000 in 1900, the size of the Southeast's educational job in 1928 to 1930 was larger than that of the whole nation in many of its aspects at the turn of the century. Even with its relative shortage of high-school students the region still enrolls more than all the nation did, and there are more accredited high schools in the region than all the nation had, in 1900. From the viewpoint of its own progress and efforts the situation is equally impressive. The 60,000 high-school graduates represent an increase of more than 500 per cent for the last two decades, while some of the states spend more on negro education than they did for all education two or three decades ago. In the percentage of high-school graduates continuing their education, seven of the southeastern states are in the highest quartile and only two in the lowest.

Alongside low ranking in most financial indices there are exceptions in the upper measures. With less than 12 per cent of the nation's wealth the Southeast accounts for 20 per cent of the total expenditures for state-supported institutions of higher learning and has a little more than 20 per cent of the colleges and universities publicly supported and nearly 24 per cent of those privately supported. Furthermore, the Southeast appropriates a greater percentage of its total income for higher education than the rest of the nation, its ratio being 0.30 per cent compared to 0.19 per cent for the Middle States. In the highest quartile of states, in the percentage which investment in public-school property is of wealth, are North Carolina, Mississippi, Florida, with only three states in the lowest. Five southern states rank higher than the average for the nation in the percentage of total wealth and total income appropriated for school purposes. Eighteen other states rank lower than the highest southern states in the appropriation per inhabitant for state support of colleges and universities for maintenance, the six states below any southern state being Pennsylvania, New York, Massachusetts, Connecticut, Rhode Island, and New Jersey. Again, although representing only a fifth of the people, the Southeast accounts for about a third of the public schools, about a third of the pupils transported over a similar ratio of miles and in more than a third of the school busses of the nation. Of

these samplings of special achievements one other will suffice. The southeastern states also show a larger ratio of total population enrolled in public schools than any other region, Mississippi showing nearly 34 per cent as contrasted with Rhode Island, New Hampshire, and Delaware with less than half as many.

Yet, turning to the other side of the picture, the average daily attendance per 100 pupils enrolled is lower in the southeastern states. Thus, the two high states in enrolment, Mississippi and Tennessee, become low states with a daily attendance of 70 per 100 pupils enrolled compared to the two low states in enrolment, Rhode Island and New Hampshire, which become high states in attendance, with above 86. In average number of days attended, the southeastern states are again in the lowest quartile, Mississippi ranking lowest with 98 days contrasted with Michigan with 171. The same is true in the average length of the school term, the range of difference being as much as 50 days. Still again, in the percentage of total enrolment in the high schools the lowest eight southeastern states report less than half that of the eight highest states of the nation. The total picture shows the score card heavily against the region in length of school term, some children having two months' schooling less than the nation's mode; in high-school facilities, thousands of children without access to high-school advantages; and below national standards in equipment, facilities, teacher training; teachers' salaries 40 to 70 per cent of the nation's average; and the separate count against it for negro schools, a story in itself.

The comparative deficiency continues in financial indices. In the value of school property per pupil enrolled, in the salary of teachers, in the per capita expenditures in public day schools, and other indices the southern states rank uniformly in the lowest quartile. Georgia, for instance, contrasts with California: average annual teachers' salaries, \$546 and \$2,337; value of school property, \$46 and \$386; per capita total expenditures, \$6.11 and \$25.43. Similarly in a count of a dozen other aspects the region ranks lowest, with a final composite ranking in more than twenty indices, listing the lowest quartile states as follows: Mississippi, Alabama, Arkansas, Georgia, South Carolina, Louisiana, North Carolina, New Mexico, Arizona, Tennessee, Virginia, and Kentucky. Perhaps the most commonly cited indices are those of illiteracy, reading, and library facilities, where there is again uniform ranking in the lowest quartile. The range in illiteracy, for instance, is from South Carolina with nearly 15 per cent to Iowa with less than 1 per cent; from ten southeastern states averaging more than 10 per cent to more than a dozen other states with less than 2 per cent. More marked is the excessive ratio of illiterate population twenty-one years of age and over, eight or more southeastern states having as many as 12 per cent and two with more than 18 per cent. In population per library every southeastern state is within the lowest fourth, six states with an index of more than forty thousand people to each library of three thousand volumes compared to the six high states with less than ten thousand. In general reading indices of books and of newspapers and magazines the differences continue at about the same level.

CAN A BOARD OF EDUCATION DELEGATE TO A COMMITTEE AUTHORITY TO DISMISS TEACHERS?

Frank P. Graves, state commissioner of education of New York, has rendered an opinion with respect to the dismissal of teachers which has significance for the state of New York and for the rest of the country as well. As reported in the *New York Sun*, the case involves the power of the Board of Education of New York City to delegate to its law committee authority to dismiss a high-school principal. In his opinion Commissioner Graves held that a recently attempted dismissal was illegal because the principal had not been tried by the entire school board or by a majority thereof. According to the *Sun*, the procedure followed in the present case is the same as that followed in scores of other cases during the past few years. Consequently, many other teachers have the right to demand new trials.

So far as we are aware, no case exactly in point has ever come before an American court. There are, however, a number of cases which seem to be conclusive of the issue. The rule is well established that, where the law vests the exercise of judgment and discretion in a board of education or other officers of a school district, that exercise of judgment or discretion cannot be delegated to any other person or body whatsoever. A board may, to be sure, delegate to its agent or agents the performance of a purely administrative or ministerial duty. Thus, where the law makes it the duty of the board to employ teachers, the board may delegate to the superintendent or to a committee the authority to ascertain proper persons to be employed or even to draw up tentative contracts; but, to be valid, the contracts must be ratified by the board itself.

An Oregon case¹ illustrates the principle. A teacher became ill, and the superintendent employed another teacher to perform her duties. The teacher thus employed taught for three and a half years and was then discharged. At the time of her alleged employment there was a statute in force to the effect that regularly employed teachers should be put on the permanent list after two years of service. There was also in force a statute which provided that "the board, at a general or special meeting called for that purpose, shall hire teachers, and shall make contracts with such teachers which shall specify the

¹ *Taggart v. School District No. 1*, 96 Ore. 422, 188 Pac. 908.

wages, number of months to be taught, and time employment is to begin." The discharged teacher sought by mandamus to compel the board to restore her to her position. The court refused the writ for the following reasons.

The manifest purpose and spirit of the statute, and the only reasonable construction that can be given it, is that the relation of teacher cannot be created except by a written contract embodying the terms prescribed by the statute. The duty thus imposed upon the board is not delegable. The directors have been elected by the people to perform a duty requiring their judgment. It is not a ministerial function which may be performed by another.

Other courts have applied the same principle. In Massachusetts a statute authorized the town of Marblehead to designate a school-house site. In town meeting the selectmen were authorized to select a suitable site, and they undertook to do so. The court held that they acted without authority, for the selection of a site was "a discretion the town itself must use and cannot delegate to its officers."¹

In a New York case² two of the three trustees of a school district levied a school tax at a meeting of which the third trustee had no notice; but, when the warrant of assessment was carried to the absent trustee, he signed it. In holding that the assessment was not legal, the court said:

Worden could not delegate his authority to the other two trustees to make the assessment. Neither could he, after they had made it, ratify and adopt the assessment or apportionment by indorsing his approval in the absence of the others. The authority which the trustees are required to administer in apportioning this tax involves the exercise of judgment and discretion—a power which cannot be delegated.

Clearly, the dismissal of a teacher is a matter involving the exercise of judgment and discretion on the part of a board of education. It is a function which the board must exercise in its corporate capacity. Boards of education should regard this principle of law scrupulously; otherwise, they may discover that attempted dismissals of teachers are without legal effect.

¹ *Harris v. Inhabitants of Marblehead*, 10 Gray (76 Mass.) 40.

² *Keeler v. Frost*, 22 Barb. (N.Y.) 400.

GAINS AND LOSSES IN EDUCATION DURING THE PAST
THREE-QUARTERS OF A CENTURY

We reproduce herewith some correspondence between C. P. Cary, former superintendent of public instruction of Wisconsin, and Charles H. Judd, head of the Department of Education of the University of Chicago.

DEAR PROFESSOR JUDD:

It has often occurred to me to write you concerning a matter in which we are likely not to be in agreement. I refer to the quality of work done in the schools a generation or two ago. I think you have a tendency, along with many others, to disparage the old and praise the new. Nothing is more common than the idea that before the present day things were very crude but now they are vastly better.

It seems to me perfectly evident that we have gained a great deal and lost a great deal in our recent "advances" in education. What are some of these gains?

We have school libraries, and children are taught—in many schools—to use them intelligently. (Admirable, but under my voice I wonder how much of it develops into a life-habit.)

We keep children in school longer each year, and the number of years they attend school is greater. (Admirable, but often we hold them too long—law of diminishing returns.)

We have richer courses of study. (Admirable, but much of it tends in the direction of shallowness and diffusion.)

We have trained teachers. (Again, admirable, but a large percentage of these trained teachers are of very mediocre native ability. I think there are reasons to believe the general average of native ability of teachers in my boyhood days was above that of teachers today. For one thing, teachers had to pass severe examinations in most of the states. Some of these examinations would today give modern college graduates the "jitters.")

We have better health conditions in our schools. A clear gain.

We pay more attention to "clinkers" in our classes. (I wonder if the really capable pupils get as much attention as they used to get. I have known modern schools in which the poor pupils got by far the most attention; they had to be "promoted" at the end of the year.)

We offer our young people a choice of educational diet that far exceeds what used to be possible. A decided gain.

Perhaps there are still other gains that ought to be mentioned, but let these suffice. Truly, these gains seem highly significant, especially when we add the tremendously increased opportunity for secondary and higher education.

But the real point on which we are in disagreement has not yet appeared. You give your voice to the opinion that in the years gone by teaching was dull, memoriter, formal, unintelligent. Of course there were schools of that sort then,

and there are schools of that sort now—in quite as large proportion, I believe. I have seen such work in recent years by teachers who were graduates of our best teachers' colleges and university departments of teacher training.

Let me become personal now and tell something about the country school I attended in Highland County, Ohio, from, say, 1864 to 1872.

One teacher we had for three years was as good a teacher as I have ever seen, I think, and I have seen literally thousands of them at work. He rarely if ever had a textbook in his hand while teaching. He knew his text, even the spelling lessons and the geography. He was almost as good a questioner as old Socrates. "Why" was a very common word with him; he used it whenever it was appropriate. We had to *know* our lessons, there was no getting by without it, and the knowing included understanding. He was "from Missouri" and had to be shown. With it all he was good natured and highly stimulating.

What could the advanced class in this school do? They could analyze *Paradise Lost* and parse the difficult constructions. They were at home in Ray's *Higher Arithmetic*; they mastered it. They could solve mentally all the problems in Stoddard's *Mental Arithmetic*. They could locate almost any place on the face of the globe—country, city, mountain, river, etc.,—everything contained in the "political" geography. They could, and did, stand up and spell for a two-hour stretch against neighboring schools without all of them "going down." We used McGuffey's 144-page spelling book. Some of us could spell through this book without missing a word. We used the dictionary often in contests.

United States history (under a less competent teacher) was the only study I ever engaged in that was badly taught. In this we were required to commit the text to memory and recite it verbatim.

As for myself, I went on with mathematics alone till I had mastered Ray's *Higher Algebra*, his *Geometry*, *Trigonometry*, etc. In fact, as a country boy I mastered all the mathematics ordinarily taught in undergraduate courses in our best universities for those majoring in that subject. I should probably never have done this except for the excellent instruction I had in the country school. I think my early schooling was limited to about three or four months every year for eight years—a total of perhaps twenty-seven months. I studied physical geography, but not in class.

Was this an exceptional showing for southern Ohio at the end of the Civil War? I visited many schools, and after I was sixteen I taught in several. I think we had a rather better teacher than most schools, but not notably so; and I never saw then what would be called poor teaching in the country schools today. The great increase in the length of the school term *does not seem to have yielded greatly increased results*. In reading, the pupils in the country school learned to read in a second reader in their first "year." If you think it was mere word-calling, you do not understand what was happening in the schools of Ohio. Our county was one of the poorest in resources in the state. Silent reading? Yes, in our textbooks, at least.

The teaching that was done sixty or seventy years ago was more intensive than the teaching today—more thorough; teaching today is more extensive.

Yes, I have heard about that find of papers in Boston. I don't know about Boston, but I do know something about the country schools in southern Ohio. And a little later I knew about the country schools in two other states, Kansas and Nebraska, and still later in Wisconsin.

Speaking of Jewish education fifteen hundred years ago, Thomas Davidson in *A History of Education* tells us that the education was defective in matter and method, but it "achieved four valuable results: (1) it developed a taste for close, critical study; (2) it sharpened the wits, even to the point of perversity; (3) it encouraged a reverence for law and produced desirable social conduct; and (4) it formed a powerful bond of union among the Jewish people" (p. 80). I fear we are falling much short of such results in the United States today. We fear propaganda, *indoctrination!*

Heaving brickbats at the educational past is not a profitable business from any point of view. Every age and condition tries to meet its obligations to society, and, so far as I can see, one age does it about as well as another. Now our situation is so difficult and complex that we are far more at sea about what to do than any age before us, and consequently we are not meeting the situation as well as it has often been met in the past.

Yours cordially,
C. P. CARY

Professor Judd replied as follows:

MY DEAR DR. CARY:

I am very much interested in your letter. I think what you say ought to be given publicity. I wonder if you would consent to my publishing your letter in the *Elementary School Journal*. I think your point of view is certainly one which ought to receive attention.

I have no doubt at all that there were some excellent schools in times past. The textbooks that were used make it perfectly clear that the schools did not have very much subject matter unless, indeed, that was derived from the teachers rather than the material which was put into the hands of the pupils. You know, also, of the comparisons which have been made by repeating examinations given at Cleveland, Norwich, Boston, and other places.

I am sure, in spite of all the changes which have been made for the better, our schools ought to consider carefully the points which you make.

Very truly yours,
CHARLES H. JUDD

A GUIDE TO THE STUDY OF THE PROBLEMS OF EARLY CHILDHOOD

The Parent Education Division of St. George's School for Child Study, University of Toronto, Canada, has recently published a

monograph entitled *Outlines for Parent Education Groups: Preschool Learning*. The purpose of the monograph is to provide a practical program for groups of parents who may be interested in studying the problems of early childhood. An effort has been made to organize the content in such schematic fashion as to impress on parents the fact "that principles are important and details or formulas are only subsidiary thereto." The first part of the monograph is devoted to a discussion of the general principles and procedures which may be most profitably employed in conducting parent-education groups. In the second part of the monograph the following topics are outlined for group study and discussion: "Why Study Our Children?" "The Learning Process in Young Children," "Eating Habits," "Sleeping Habits," "Habits of the Toilet," "Sex Education," "Activity in the Child's Experience," "The Fears of Children," "Anger in Children," and "Appetites, Emotions, and Attitudes." Each topic is outlined in considerable detail. Pertinent questions are raised, and specific suggestions are made for breaking undesirable habits and for the development of desirable ones. Each topic is followed by a list of references. Although designed primarily as a guide for group study and discussion, the monograph should prove exceedingly stimulating to parents who are unable to participate in a program of group study.

THE JERSEY CITY PLAN FOR THE PREVENTION OF JUVENILE DELINQUENCY

In every city there are various community agencies which in some way are brought into contact with delinquent youth. For an intelligent handling of delinquents it is highly desirable that these agencies co-operate to the fullest extent. In a recent issue of the *New Jersey Educational Review*, Thomas W. Hopkins describes a plan of community co-operation in Jersey City which has been in operation for the past three years. The plan is of such significance that we feel justified in quoting Mr. Hopkins' description of it at some length.

Jersey City community groups, schools, police, correctional institutions, courts, and municipal medical center have joined forces during the last three years to forge a comprehensive program for the prevention of juvenile delinquency. This has been possible in the depression years because the people of

Jersey City have been convinced that instead of curtailing such a program it should, rather, be expanded to meet an increasing need for it.

Under the existing arrangements any child involved in serious difficulty with the school or police authorities has his physical and mental condition examined, and a thorough investigation made of his home, school, and leisure-hour activities, so as to determine the causal factors in his antisocial conduct. No child is taken into a police station, courtroom, or institution until he has become a chronic offender. The boy who has been to the police station thus no longer plays the rôle of neighborhood hero.

Parents are always called to account in a conference with the authorities and the child, and emphasis is placed on their responsibility for the child. If necessary, charges are preferred against the parents under the Welfare Act. . . .

The organization handling these juvenile cases is known as the Bureau of Special Service of the Jersey City Board of Education. It was set up that way because the school of necessity deals with all the children during their formative years, when a preventive program is of most direct value.

The present personnel consists of twenty-five attendance officers; seven visiting teachers; six plain-clothes police officers; a clinic including psychological, psychiatric, and physical examiners; and, last but not least, a staff of forty-eight recreational directors. All conceivable forms of activity bearing on the field of child welfare are represented. In addition to this an assistant superintendent of schools devotes his entire time to the supervision of this bureau and of the various classes for handicapped and maladjusted children.

The thesis of this entire organization is that every case of maladjustment has definite causal factors of a physical, mental, or environmental nature, which should be recognized and carefully considered before the child is institutionalized or held responsible in any other manner.

In handling all cases the procedure is as follows:

1. Children showing definite signs of abnormal physical or mental conditions are reported to the Bureau of Special Service on special forms prepared for such reports. Accompanying it is a complete statement of the school history on the permanent record card of the school system, as well as an analytical statement on personality traits, recreational habits and interests, and any special indications of maladjustment.

2. These cases are then referred to the visiting teachers for complete investigation of both home and school conditions. This record becomes a cumulative one through weekly follow-up visits by the visiting teachers.

3. All children are scheduled for complete clinical examination in the light of the information gained from school and home. Special attention is given to sensory defects, because of their importance in determining potential success or failure.

4. Weekly conferences are held for the discussion of these cases in an attempt to formulate a well-rounded judgment as to the proper way of handling each individual.

5. Recommendations are made to the superintendent of schools regarding the necessity for transferring children to the various special classes and schools. Further than this, recommendations are also made for the establishment of additional classes. . . .

Many of the units in this type of organization, such as attendance officers, police, school physicians, and possibly visiting teachers and recreational directors, are already in existence in many of our larger cities, and certainly some of them exist in every town and city. The particular claim to credit which Jersey City makes is that it has combined such agencies into one unit and extended the use of some so that a complete picture of every child is available and he is to be judged and guided in the light of this rather than by the isolated act which brings him to the attention of the officials.

During the three years of this experiment the only part of the organization which has been questioned has been the utilization of police officers in handling children. In my opinion, this is one of the most distinctive and valuable features of the entire unit. When the fact is taken into consideration that, as long as juveniles break laws in their leisure hours, they are bound to come into contact with police officers (most of them untrained in the handling of juveniles), it would seem much more desirable to have the contact made with a group of selected officers who have had special training in the work and who appreciate fully the objectives of such a program.

In addition, the elimination of the station houses and the courtroom and other such hardening influences is a very necessary asset in any truly preventive program. Unless the school system shows the way, provides desirable physical surroundings for the proper contact of the juvenile with the police officer, and knows the circumstances surrounding the necessity of such contact, it can neither blame the police for improper handling of the boy nor can it know the real boy in his out-of-school hours when such contacts are usually brought about.

The emphasis which has been placed upon an intelligent utilization of the police department has not, as the uninformed might believe, been a frenzied attempt to correct unusually bad conditions. During the last five years the United States Department of Justice has annually rated Jersey City as the outstanding city of over 100,000 population, in its freedom from major crimes. Its rate ranges from one-seventh to one-tenth of that of the city with the highest rate for such crimes. In the light of such facts it may readily be seen that the Jersey City program is based entirely upon a wholesome realization of the values of co-operation between agencies such as the school and the police department.

A NEW ABSTRACTING SERVICE FOR EDUCATION

Announcement some weeks ago has been followed by Number 1, Volume I, of *Educational Abstracts*, which is being issued as a bi-

monthly. In content the new periodical aims to be comprehensive of educational subjects represented, as is suggested by the range of the following topics, which include about half the complement of topics listed under "Contents": administration, organization, and supervision; adult education; character education and behavior problems; child development and parent education; comparative education; curriculum; educational psychology; fine arts and music; library work; philosophy of education; religious education; elementary education; social studies; teacher personnel; test and measurement techniques; vocational and industrial education.

The abstracts in the first issue, totaling 281 and extending through 80 two-column pages, appear to be well done, although it is impossible for one person to render final judgment on competence of abstracting over the wide area of content represented. Monographs, bulletins, and periodicals are included in the digests, and the abstracts are arranged under each subject in alphabetical order of authorship. All abstracts are assigned numbers and the "Author Index" on the third cover page refers to these numbers. These arrangements seem well designed for availability. The first issue is put forward as an experimental one, and the editors solicit comment on it with a view to desirable improvement of the periodical.

Educational Abstracts should not be confused with the *Education Digest*. The *Digest* is a monthly periodical, the editorial aim of which is "to present to the busy educator condensations of noteworthy articles taken from the leading professional and lay publications." At best, it can hardly present more than thirty abstracts in an issue, whereas *Educational Abstracts* must be much more comprehensive. At the same time, even *Educational Abstracts* cannot be fully comprehensive, owing to the vast stream of educational material being continuously published. Because of their distinct services there should be a place for both publications.

The editor of *Educational Abstracts* is Norman J. Powell. The staff includes five associate editors. The title-page carries a list of more than forty "co-operating editors," American and foreign. Editorial and business offices are at 230 Fifth Avenue, New York City. The rate of subscription is four dollars a year, and single copies may be obtained at one dollar.

IMPROVING INSTRUCTION THROUGH DEMONSTRATION LESSONS

The *Annual Report of the Board of School Commissioners of Baltimore City, 1935*, contains the following account of a recently initiated practice of using demonstration lessons to improve the quality of instruction throughout the city school system.

A new development in the use of demonstration lessons was introduced in the field of elementary education during the scholastic year 1934-35. Previously, the demonstration lesson had been employed in this city mainly for pre-service training and for in-service training of beginning teachers, unsatisfactory teachers, and other classroom teachers who desired to improve their daily work.

SOME TOPICS TREATED IN DEMONSTRATION LESSONS

Grade	Subject	Point of Emphasis
I B.	Reading	Beginning reading—chart work—class divided into three groups according to levels of ability
I B.	Reading	Introducing the children to a primer
I A.	Social studies	Initiating a unit in social studies
I A.	Social studies	Securing information from books and visual aids
I A.	Social studies	Carrying on a work period
I A.	Arithmetic	Teaching number concepts including the easiest combinations
IV B.	Geography	Initiating a unit
IV A.	Reading	Applying phonics in vocabulary study
IV A.	History	Securing historic information from varied sources
IV A.	English	Initiating a unit of work in composition
IV A.	English	Meeting group needs in composition by corrective work

During the past year the demonstration program was extended to include several series of lessons attended by the administrative and supervisory staffs and by classroom teachers who had shown special aptitude in their chosen fields of work. The purpose was to provide demonstrations of educational procedures that were problematic in character and to furnish opportunities for critical discussions of these procedures with the leaders of the various elementary schools of the system.

Two groups of children were selected as demonstration classes, one from a first grade and the other from a fourth grade. Capable, resourceful teachers were assigned to these classes. The lessons were scheduled for the first and last periods of the school day so that observers would be away from their schools for as brief a time as possible.

A grade supervisor worked with the demonstration teacher before each lesson was given, helping her to plan a classroom activity which would meet the needs of the pupils and at the same time show a development of the educational problem to be discussed in the conference period. Written summaries of the main

points emphasized in the lesson, and in the discussion, were distributed for reference purposes. Very frequently those who attended gave complete reports of their observation and conference to faculty members not able to be present. The demonstration program thus resulted in improvement in teaching in many elementary classrooms.

The topics embraced in the demonstration program are shown in [the accompanying table].

SOME IMPLICATIONS FOR VOCATIONAL GUIDANCE OF THE HARVARD GROWTH STUDY

In 1922 the Graduate School of Education of Harvard University began a "growth study" of 3,500 pupils who were at that time entering Grade I. The careers of these pupils have been followed as closely as possible down to the present. The following statement, published in the *New York Sun*, indicates that unemployment is foreshadowed even in Grade I. It indicates, too, the need of a realistic and effective type of guidance.

Future unemployment can to a large extent be predicted on the basis of scores made in the first grade of the elementary school, it is contended by Dr. J. W. M. Rothney, of the Harvard Graduate School of Education, who has just completed a study of 1,700 recent high-school graduates.

The records of these graduates go back to 1922, when they were in the first grade. At that time the Harvard School of Education began a "growth study" of 3,500 first graders. Their teachers were asked to rate them on qualities of leadership, behavior, concentration, intelligence, and scholastic standing.

Working with Professor Walter F. Dearborn, Professor Rothney has just completed a study of 1,700 of these cases. On the basis of replies received from 88 per cent of them, the Harvard professor announces that those who are now out of jobs received, on the average, lower ratings than the others.

In the case of boys the correlation was better than for girls.

A greater percentage of the employed than of the unemployed had finished high school, and, moreover, the employed group and the students who had gone on to more schooling had taken a greater part in extra-curriculum activities in schools, such as sports, clubs, political offices, and school papers, than the unemployed.

A pressing need for vocational guidance in the public school is revealed by responses to queries about what the individuals are aiming to take up as their lifework, Dr. Rothney states.

For example, a vast majority of the girls, whether in higher school, unemployed, or employed, regard the secretarial work they did in school as the most interesting of their studies and express the desire to be secretaries or stenog-

raphers. The significance of this is brought out, Dr. Rothney states, by the fact that there are two million unemployed women stenographers in the United States today.

He found the same lack of relation between students' choice of occupation and the actual needs of the working world. For example, while 17 per cent of workers in the United States are day laborers, only 1.4 per cent of the students chose this as their occupation. On the other hand, more than 28 per cent of the students chose to be professionals, while this class consists of only 4.4 per cent of the American workers.

WHO'S WHO IN THIS ISSUE

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IS CONTACT WITH LOGICALLY ORGANIZED SUBJECT MATTER SUFFICIENT FOR THE EDUCATION OF CHILDREN?¹

CHARLES H. JUDD
University of Chicago

The phrase "logically organized" has a cold, impersonal sound. It has been used with striking effect as an indictment of current school practices by a number of educators who profess to be interested above all else in the rights of children in the schools. I shall not appeal to the prejudices which I take it all of us share against anything that seems to be lacking in human sympathy for pupils. I think I could make a case against pure logic more impressive than the case made by the most radical critics of present practices.

The chief opponents of logical organization are perhaps the self-styled "progressives." It has always seemed to me that the progressives lose rather than gain by the way in which they attack conventional school subjects. The progressives and the child-centered educators often interpret "logically organized" as equivalent to the single word "organized." Since they are repelled by logic, they recommend that all systematically organized subjects now included in the curriculum be summarily rejected and that the unsystematic experiences of children be followed as guides in school work. Pupils are not to study geography systematically; they are to study it only in terms of the supplies of food and clothing which come to their families from here and there on the earth's surface. Pupils are not to come in contact with addition tables or multiplication tables in arithmetic because these tables do not correspond to anything that children experience in real life. The opposite of "logically organized" instruction seems to be regarded by the progressives as opportunistic education. Chance happenings are accepted as the only legitimate mate-

¹ Negative argument in a debate on February 24, 1936, before Group C of the Curriculum Division at the meeting of the Department of Superintendence of the National Education Association.

rials for attention in the school. If oranges cost three cents each and bread costs ten cents a loaf, the order of instruction advocated by the extremists is 3 times 6 and 10 times 2. It is declared to be rank heresy to follow 3 times 6 by 3 times 7, 3 times 8, and so on, because such a sequence is thought of as logical, formal, and lacking in the virtues which attach to marketing and to sheer chance.

I yield to no one in abhorrence of mere formalism. The old-fashioned spelling-books were based on the order of words in the dictionary. Words having the same first syllable or the same last syllable were brought together, and pupils were required to learn these similarly constructed words without regard to their meaning or usefulness. The old-fashioned spelling-books should certainly be condemned as transgressing the principles of proper teaching. These books were open to the charge that they were badly organized. Insofar as they were guilty of their particular type of logical organization, the phraseology employed in the subject assigned to us for debate can be applied to them with an emphatic negative. The statement can be made without hesitation that "contact" with the older type of spelling textbook was not "sufficient for the education of children."

The example of badly organized spellers is illuminating because it calls attention to the fact that the term "logically organized" is a relative, not an absolute, term. If spellers are organized according to structural similarities of words, they are, to be sure, organized in a way which is, strictly speaking, logical. If a student of philology is interested in phonic structure pure and simple, he has a right to collect words having like first syllables or words having like final syllables. The difficulty with that kind of selection of words is that it is far less useful for education than arrangement of words according to frequency of occurrence in ordinary conversation and writing. When Ayres made his spelling scale, he abandoned, it is true, the particular arrangement of words that had long prevailed in spellers—the arrangement dictated by the dictionary-maker. He substituted an arrangement in accord with practical experience.

There is a sense in which the modern arrangement of words according to experience is no less logical than was the earlier, dictionary arrangement. The criterion of logical arrangement widely accepted

in the making of spellers today is frequency of use. This criterion is substituted for the earlier criterion, similarity of structure. One arrangement can be set aside as formal and barren for education; the other has been so generally recognized as valid that it requires no justification at my hands. Thorndike's list of words and his dictionary, the Iowa lists, and all the spellers published since Ayres did his pioneering work demonstrate that arrangement was not the defect of the early spellers but arrangement of a kind which was less productive of educational results than is the present arrangement.

I have dwelt at length on the example of spelling because it illustrates clearly the main point which I want to make. "Logical organization" is insufficient and often misleading because the particular kind of logic employed is unproductive. On the other hand, spelling as organized by Ayres, Thorndike, and the Iowa investigators is not directed by the chance experiences of daily life. Selection and system are clearly present in the spellers based on frequency of use. This statement shows that the emphasis in this debate should center not on the word "organization" but on the word "logical." The progressives have concentrated to their own undoing on the word "organization" and have advocated the abandonment of all systematic teaching and learning. In their efforts to avoid the formalism of certain types of logical arrangement, they have discarded all organization.

Let us consider another example. When I was in the second grade, my teacher introduced me to the study of geography by the method which was at that time popular, the method of drawing maps of the school building, the schoolyard, the neighboring streets, the city, and, finally, the state. As contrasted with the unsystematic exploration of the neighborhood, the method used by my teacher may be called rigid and logical. It was distinctly an effort to create in the youthful minds of my classmates and myself certain definable, systematic geographical concepts.

In examining some of the newer geographies, I have been greatly interested to find that their method of introducing pupils to the subject is wholly different. Instead of beginning with the immediate environment, these new geographies select some remote country where the conditions of life are comparatively simple. On a blank

hemisphere the map is "unfolded," to use a word in the title of one of the recent books, and gradually the area made familiar through study is expanded until finally it reaches the pupils' home country.

Let us ask: Which is the logical organization of geography? Is it logical to take interesting walks and be satisfied with unorganized experience? Is it logical to begin the study of geography with a consideration of life in some tropical area? Is it logical to begin with the schoolhouse and the schoolyard? Some writers say that the experiences which are gathered by rambling accord with the logic of life. The logic of home geography is the logic of the near and concrete as distinguished from the logic of the simple. The logic of instruction in geography which begins with simple life in the tropics is the logic of anthropological geography as distinguished from the logic of locational geography.

The illustration of geography and the questions which this illustration raises make it evident that the word "logical" is of little value in defining the true issue before us in this debate. The main question is: Is school work to be organized? After this main question is answered, it will be appropriate to take up details and ask about the particular logic to be followed.

One solution which has been suggested of the problem here under discussion is to organize school courses psychologically rather than logically. The term "psychological," like the term "logical," which it is to replace, has a number of different meanings. Some writers who use this term think of concrete experiences as they present themselves in the lives of pupils as psychological. The order of the day's happenings are said to be the true psychological order. No very penetrative consideration is necessary to overthrow this exceedingly superficial view. Psychological arrangement is far from the arrangement which is controlled by the occurrences in the outside world. I walk down the street and pass a long row of houses. Some of these houses are the homes of my friends. Some of the houses are architecturally attractive to me; some are not. The street as I see it is a unique reflection of my personal interests. I select and arrange and emphasize and neglect in psychological terms. Similarly, a child's world is not the world that is presented to the senses. Before he has learned to read, the child does not in any proper sense experience

books though the environment may be full of books. Boys in school have experiences quite different from those which attract and hold the attention of girls. Psychological arrangement is not a fixed, externally conditioned arrangement.

The phrase "psychological arrangement of school work" is often used to refer to arrangement according to stages of maturity. The infant certainly cannot absorb the abstract ideas which a mature individual can understand. The work of the school must recognize this fact and must lead up to abstractions by dealing at first with concrete perceptual experiences.

The term "psychological organization" has been used by the Herbartians to refer to the associations and correlations between different school disciplines.

When anyone advocates a psychological rather than a logical presentation of school subjects, he should be careful to indicate the particular form of logic to which he is opposed and the particular psychological arrangement which he favors.

The solution of the problems of teaching involves, I believe, a much broader view of the learning process than that which can be expressed in any simple answer to the question propounded for this debate. There are plenty of arguments which can be presented against particular logical arrangements of subject matter. This fact is undoubtedly the basis for much of the radical opinion which is abroad today in the educational world. Personally, I do not see how anyone who has come in contact with some of the perfectly systematic but wholly unproductive schemes of teaching can fail to be sympathetic with the attack on all purely formal systems of teaching. If "logical" means "formal," we could all join the ranks of the progressives. If the attack on formalism is carried so far as to abandon all organization, the resulting chaos will hardly be acceptable to those who believe that mental life should be an orderly series of associations.

The objection to certain kinds of logical formalism which I am entirely willing to accept can be illustrated by numerous examples. I recall an example which came to my attention during the survey of the institutions of higher education in California. The junior colleges of that state were making an effort to conduct their first course in

biology in such a way as to conform strictly to the pattern of the introductory biology course at the state university in Berkeley. In the fertile valleys of California, where examples of life of many kinds are abundant and easily accessible, the young people were studying as best they could specimens preserved in alcohol which were imported from Berkeley. The specimens conformed to the logic of Berkeley; they could hardly be described as logically or even rationally the basis of all thinking in all parts of the state.

Another illustration of excessive devotion to a particular logic is the now generally abandoned method of teaching reading known as the A-B-C method. Some ancient pedagogue must have said to himself that the simplest element of the printed page is the letter. The logical argument then ran as follows: The mind of the learner who is being introduced to the printed page is capable of grasping only the simplest experiences; therefore, letters must be taught before words or sentences. After single letters have become familiar, combinations of letters should be taught. Thus, the learner is to ascend by easy steps to the final, remote level of getting meaning from words and sentences. The difficulty with this logic is that the simplest element of language is not the sound for which the isolated letter stands. The simplest element of language is the phrase or sentence. The ancient pedagogue who went back to letters was looking at an external object, not at the learner. He made a correct analysis of the thing at which he was looking but not of the situation with which he ought to have dealt. His logic was valid in its reference to printed matter but wholly inapplicable to the learning process.

What I am trying to make clear is that there are hundreds of logics and an equal number of psychologies. There is no rule of thumb which can be held up and defended as the infallible, single pedagogical arrangement. Instruction is a succession of strategic moves. When the teacher finds that a learner's mind has captured one position in any given field, the teacher should consolidate that position and move on to another in the effort to gain a succession of victories. There should, indeed, be a systematic advance in the learner's experience, but that advance should not be bound by any particular logic. The teacher should be keen enough and resourceful enough to recognize the fact that there may be as many logics as there are

members of the class, that there will always be in any class more than one logic. Each logic should be followed with a view to taking advantage as fully as possible of that which the particular child has achieved.

Thus far I have been discussing what may be called the many logics of attack on school subjects. Interestingly enough, the many logics usually lead in the long run to a single final, best, and most economical logic. During the long history of the race many minds have attempted to solve the problems of life. Through co-operative endeavor many lines of experience have been consolidated into perfected systems of thinking. In the world of number, for example, there is a completeness and coherence in the number system which could not have been developed by a single mind operating by itself. The logic of number in its final form is superior to the logic of individual efforts to deal with quantitative facts. The individual pupil finds, therefore, that he is greatly advantaged in the end by turning his intellectual steps into the path made plain and safe by the race. Logic of the most general type is an end or goal rather than a scheme to be insisted on in the introductory stages of learning.

I do not know whether or not I did the advocates of the progressive school an injustice when I said that they have abandoned all expectation of organizing experience. I am rather disposed to believe that we are all in agreement in the desire to bring pupils in the schools into possession of the complete sciences which have been produced through racial co-operation. I cannot escape the conviction that even the most radical progressive wants pupils to be able to add, subtract, multiply, and divide. I cannot be persuaded that the progressives are so irrational as to want pupils to be ignorant of the fact that Africa is south of Europe. What seems to me to be necessary is to persuade the advocates of the new cults in education to go beyond the first stages of education. I have observed that the most radical schools tend uniformly to become conventional in the upper grades. Another way of expressing the same idea is to say that individual logics of attack converge as they mature. After all, the race with its long history of strenuous intellectual effort is more competent than the individual even if the individual has an I.Q. of 160. I am inclined to conclude my argument,

therefore, by rewording the question which we were asked to discuss. Instead of debating the question, "Is contact with logically organized subject matter sufficient for the education of children?" I suggest that we turn our minds to the consideration of this far more important question: What is the most expeditious and economical method of inducing children to exert themselves so that they will pass beyond the partial and frequently unproductive logics which they naturally follow and arrive at the sound and comprehensive ways of thinking that the race has evolved? If we concentrate attention on this new question, we can all agree in condemning immature logics and immature psychological processes, but we shall be saved from putting organization into the discard. We shall retain our faith in systematic thinking by making it the end and aim of school instruction. We shall be willing to treat some kinds of organization as formal and unwise, but we shall not plunge into chaos because we shall see the virtue of accepting the guidance of the systems of thinking which the race has evolved.

PROCEDURES USED IN SELECTING SCHOOLBOOKS¹

I. PROCEDURES USED IN CITY SCHOOL SYSTEMS

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The selection of schoolbooks presents serious problems to administrators in city school systems. It is very apparent that there is a necessity for the use of adequate procedures in choosing among the large number of books submitted by publishers and in considering the variety of books needed for an enriched teaching program. Which of the staff members should make the selections is one question that must be decided when a procedure of selection is set up. Should the officials of each school choose books for that school or should members of the central staff select books for all the schools? How can the various staff members, such as grade supervisors and school librarians, participate effectively in book selection? Upon whom should final responsibility rest? Another problem is that of organizing the work of the selecting agency with respect to the studies to be made in examining books and the use of the results in determining recommendations. A third problem relates to the procedure for selecting different kinds of books. Should textbooks, supplementary books, and books for recreational reading be selected by the same procedure or should a different procedure be worked out for each type? In the attack on these problems consideration must also be given to the provision and the apportionment of time for the work of the selecting committees. This article describes types of procedure used in city systems in selecting books for school use.

In October, 1929, the writer began a survey of the practices followed in selecting books for Grades IV, V, and VI in cities with populations of thirty thousand and over. Some smaller cities were in-

¹ For a more extensive and detailed discussion of the subject, see a forthcoming volume by the author, *Procedures Used in Selecting Schoolbooks*, to be published by the University of Chicago Press.

cluded to represent areas having few large cities. Altogether, 135 cities were represented in the survey. These cities included slightly less than half the urban population in the United States. The procedures used in selecting textbooks, supplementary books, and recreational-reading books were studied. A modified form of the questionnaire method was used in making the survey. This form involved several steps: First, a letter asking for a description of the procedures used in selecting books was sent to the superintendent of instruction in each school system. Second, after answers had been received, an individual letter was sent asking for information on specific points not given in the reply. Third, a summary of the data supplied by the co-operator was returned to him on a blank with a request that he verify the data, answer questions for which the investigator did not as yet have facts, and furnish as much additional information as possible. In preparing the blank, the investigator entered the data as answers to the questions listed on the verification blank. This technique of verification increased the validity of the questionnaire data, as was shown by an objective analysis of the corrections and additions obtained through the use of the technique.

After the reports submitted had been verified, an analysis was made for the purpose of determining the types of procedure in use. The only apparent basis on which the findings could be classified was the agency which selects books. Separate tabulations were accordingly made for textbooks, supplementary books, and recreational-reading books. Since procedures of the same type varied widely in detail, an analysis of the variations was also made. Because of limited space this analysis is not presented here.

TYPES OF PROCEDURE

Briefly, the six types of procedure distinguished were: (1) selection based on the consensus of opinion of all the staff members concerned with the book, (2) unguided selection by the principal and teachers, (3) guided selection by the principal and teachers, (4) selection by central book committees, (5) selection by central curriculum committees, and (6) selection by central-staff members. In some instances the procedure used included elements of more than one of these types and was then classified according to its major aspects. In

the discussions which follow, each type of procedure is defined. Since some school systems secure recreational-reading books from the public library, forms of library co-operation are also described.

Selection based on the consensus of opinion of all the staff members concerned.—The consensus of opinion of all the school officials concerned in teaching and supervising a school subject may determine the selection of books in that subject. The superintendent or a department of the central staff may ask a group of staff members to name the best title in a particular subject. The group may consist of elementary teachers, principals, and supervisors; of teachers; of principals; or of both teachers and principals. Usually no provision is made to assist those concerned in making their selection. If approval by the board of education is required, the superintendent recommends the book receiving the largest number of votes. Five per cent of the cities reporting use this type of procedure in selecting textbooks, 1 per cent in selecting supplementary books, and none in selecting recreational-reading books.

Unguided selection by principal and teachers.—A second plan requires each principal and his teachers to select books for their school but provides no guidance. The only regulation made by the central staff is that purchases must not exceed the book budget for the school. However, the principal is free to ask help from the superintendent, the supervisors, or other school officials. Although purchases must be authorized by the superintendent, his approval is a more or less routine matter. In this procedure the same book is not necessarily chosen for all the elementary schools, as is the case when consensus of opinion is used. Eighteen per cent of the cities reported unguided selection in securing recreational-reading books and 12 per cent in securing supplementary books. Only 1 per cent employ this procedure in selecting textbooks.

Guided selection by principal and teachers.—In the third plan the principal and the teachers again have the responsibility of selecting books for the school, but they receive definite guidance from members of the central staff. Such guidance is provided by various school officials: usually by superintendents and grade supervisors; often by assistant superintendents; occasionally by the director of elementary education, the director of research, the school librarian, a committee

of teachers and principals, or a committee of teachers and a supervisor. In a few cities public librarians guide the selection of recreational-reading books.

Guidance is given throughout the school year or only at certain times, for example, when Book Week is being observed or when requisitions for books are to be prepared. It may consist in revisions in the principal's requisitions or in analysis of needs and assistance in selecting appropriate books. The direction may be barely indicated or elaborately worked out.

The following are examples of the various devices used in guiding teachers and principals in selecting books for their school: asking the principal to evaluate his book supply in the light of certain standards, circulating an exhibit of books through the schools, furnishing book lists, discussing and exhibiting books in teachers' meetings, placing brief evaluations of books in the flyleaves of samples, and sending book reviews to teachers. Such devices are valuable because they stimulate the interest of the teaching staff in desirable new books.

Guided selection was reported by 4 per cent of the cities for textbooks, by 16 per cent for supplementary books, and by 23 per cent for recreational-reading books.

Selection by central book committees.—In the fourth plan a central book committee recommends books for one or more grades in all the schools of the system. Such committees are composed of teachers, principals, and central-staff members and select all the books supplied, or they may be made up of school librarians who select recreational-reading books only. The central-committee plan was reported most frequently, 64 per cent of the cities employing it for textbooks, 28 per cent for supplementary books, and 20 per cent for recreational-reading books.

The type of committee reported most often is composed of teachers, principals, and the superintendent, the chairman being an assistant superintendent, a supervisor, or a principal. Sometimes, however, these committees are composed entirely of teachers, of principals, or of superintendents. Occasionally a normal-school instructor, a high-school principal, a high-school department head, a junior high school principal, or a member of the board of education serves on the

committee. The teachers are appointed by the superintendent from the grades in which the books will be used. The number of teachers ranges from two to twenty-seven, the median being six; the number of elementary principals ranges from one to all in the city, the median being two; and the number of supervisors from one to five, the median being one.

Few of the city school systems have a definite policy as to the amount of time allotted for committee work. Some systems reported a period of several months, one only twelve hours, and another more than two years. The number of meetings ranges from one to thirty. The meetings may last for an hour or for an entire school session.

Sometimes the superintendent or a central-staff member advises the committee concerning the procedure to be followed, but more often the members themselves organize their work. Assistance in developing methods is sometimes given by the department of educational research. Usually the members study the books independently, then meet to pool their judgments. However, the examination is sometimes made in committee meetings. The study of books may involve personal inspection only or the application of score cards. Members may be asked not to give individual interviews to publishers' representatives, especially if the committee interviews the representatives.

After the committee has examined the books, it recommends one title or a number of titles or submits a list to the superintendent or to a steering committee. In a few school systems committees are required to submit a report on the merits of each book examined. After reviewing the report, the superintendent may recommend further study of the books, may challenge the committee, or may follow the recommendations exactly or with modifications. The work of the committee is then ended, and, when books must be selected again, a new committee is appointed.

Selection by central curriculum committees.—Central curriculum committees which revise the course of study in a particular subject may also select books for that subject. Unlike book committees which are organized for a limited period, curriculum committees are permanent. They are composed largely or entirely of teachers, the number reported varying from three to thirty. The number of ele-

mentary-school principals on such committees varies from one to all in the city. The superintendent, an assistant superintendent, a supervisor, or a research specialist may also be a member. The total membership of curriculum committees ranges from three to thirty-five. Often the chairman is a superior teacher, a principal, or a supervisor. Selections may be made at regular intervals or whenever a new course of study is prepared or a need for new books arises. This plan is used by 12 per cent of the school systems in selecting textbooks and by 8 per cent in selecting supplementary books. No system reporting uses this procedure in selecting recreational-reading books.

Selection by central-staff members.—In the plans already outlined selections are made by the principal, by his teachers, by central committees, or by any other officials who may be concerned with the use of the books. In the plan now to be described central-staff members are responsible for selecting books. Although various officials were reported as serving in this connection, supervisors, superintendents, and assistant superintendents usually serve.

As a rule, a larger number of staff members participate in the selection of textbooks than participate in the selection of other types of books. When only one central-staff member is responsible, he often asks the advice of his colleagues, such as special subject supervisors, general supervisors, research and curriculum specialists, school or public librarians, or superior teachers who have been asked to try out certain books. A few systems reported elaborate procedures of this type. These procedures involve the use of such methods as formulating guiding principles, analyzing the amount of material which is furnished for curriculum units, and securing expert judgments on books relating to special fields, for example, science or agriculture. Other systems reported that staff members employ only one or two methods. The time which is given to examining books varies widely. Some staff members spend only two hours in examining textbooks, whereas others give continual attention to the problem. However, the latter procedure is rarely indicated. This plan is used by 14 per cent of the cities for textbooks, by 35 per cent for supplementary books, and by 23 per cent for recreational-reading books.

Public library co-operation with respect to recreational-reading books.

—The amount and the kinds of co-operation which school systems receive from public libraries with respect to recreational-reading books vary widely. In some systems no assistance is secured from the public library. In others public librarians advise with the school officials concerned in book selection, recommend lists of titles, or furnish new books for appraisal. In the majority of the systems additional books are supplied by the public library. In the remaining systems the entire supply of recreational-reading books is secured through the public library.

In supplying additional books, the public library makes loans to the school library or classrooms or maintains extension libraries in school buildings. Interlibrary loans are usually selected by the school librarian. Classroom collections, usually containing forty or fifty books, may be sent to all the schools in the city or only to schools located at a distance from public-library branches. In a few cities the classroom collections are changed every two weeks; in many cities, once a month; and in a few other cities, once a semester. The books are usually selected by the public librarian in accordance with her own judgment or the teacher's request.

When extension libraries are maintained in schools, public librarians select the books. They usually consider requests from the principal and teachers and sometimes consult school bulletins, bibliographies, or courses of study.

SIGNIFICANT PROBLEMS

The foregoing descriptions reveal striking contrasts among the procedures used in city school systems in selecting books.

1. The principal and his teachers may be either guided or unsupervised in making their selections. In guided selection central-staff members introduce new books to principals and teachers, define specific needs, assist principals and teachers to evaluate their book supply, or confer with principals and teachers as they make their choices. Inherent in this contrast are certain significant questions: Will principals and teachers, unguided, learn of many available books in the field? Will they recognize broad as well as particular needs? Will

they be able to select books which meet such needs? In a word, are principals and teachers generally qualified to make selections without guidance? On the other hand, if selection is guided, how can central-staff members use their time and effort to best advantage?

2. Book selection may be treated as an isolated duty or as a duty related to teaching and supervision. In the one case books are selected with no special regard to teaching problems. For example, the teacher merely asks the public library for a supply of recreational-reading books, or a central-staff member hastily selects books a few days before they must be ordered. In the other case books are selected with definite regard to teaching aims. For instance, curriculum committees search for suitable books as they revise the course of study; committees of teachers, principals, and supervisors examine books to determine which are best adapted to their needs; or central-staff members ask teachers to make classroom tests of books as they are received. These facts suggest two fundamental questions: How can the selection of books be organized as an essential responsibility of teaching and supervision? How can the examination of books be conducted so as to contribute effectively to instruction?

3. Administrators either uncritically follow recommendations for schoolbooks or critically challenge such recommendations. In the one case the administrator asks only for the recommendations of his teachers or committee. In the other instance he asks for teachers' judgments regarding each book examined or the committee's reasons for recommending certain titles and rejecting others, or he organizes an administrative committee to check the work of book committees. The descriptions of procedure show that the study of books is more careful and detailed when administrators critically challenge recommendations. Assuming that recommendations should be supported, a relevant question is: What data should administrators demand from their staffs in order to promote a critical attitude on the part of those making selections?

Inherent in each of the foregoing contrasts are other significant differences relating to the personnel concerned. The selecting agency may be limited to the principal and his teachers or may include the central staff. It may involve only one examiner or many examiners, having different training. It may comprise an unselected or a care-

fully selected personnel. Likewise, the attitudes of the selecting personnel differ radically. Some school officials give careful consideration to teaching problems, and others completely disregard them. Some administrators critically challenge recommendations, and others uncritically adopt them. In brief, the foregoing contrasts reflect fundamental differences in the professional training, attitudes, and insight of the personnel delegated with the responsibility of selecting books.

In addition to the contrasts indicated, the general methods employed in selecting books vary widely. Some procedures include only one or two steps; others include several, such as taking an inventory of books on hand, discussing specific needs for materials, preparing written evaluations of sample copies, and summarizing statistical data concerning the books. Some procedures fail to employ any definite standards of evaluation, and others indicate that score cards are worked out and applied. The procedures also involve various methods of evaluation, such as making classroom trial of books, formulating guiding principles, securing evaluations from experts in the field, or tabulating the amount of material relating to curriculum units. In some procedures final choices are made by voting, in others by following the results of score-card ratings, and in still others by agreement reached in discussion. Since the standards and methods used affect the validity of the decision, a critical and statistical analysis of these methods will be made in a later article.

A FUNCTIONAL APPROACH TO ART EDUCATION IN THE ELEMENTARY SCHOOL

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ART A BROAD EDUCATIONAL SUBJECT

Art, unlike other subjects of the school, presents several aspects to the curriculum-maker and the teacher. Several quite different bodies of material make up the total of what is commonly known as art education.

Ever since the introduction of art into the public schools in 1821, controversy has existed with regard to the values of curriculum material of one type or another. An enormous quantity of literature has been published about art in all its forms. Various systems of art education have been promulgated, which later have been abandoned and forgotten.

Advocates of special theories seldom see the problem as a whole. They are interested primarily in promoting some specific phase of the curriculum that has proved especially effective in the scheme of instruction which they are using. The introduction of special theories of art-teaching has aided greatly in expanding the possibilities of the subject. New theories are necessary if art is to keep pace with changing school needs. However, lack of agreement in regard to fundamentals has tended to confuse the general educator in making an effective appraisal of the co-ordinate values of this field of education.

At the present time difference of opinion exists concerning the contribution which art can make to the elementary-school program. On the one hand, there is the advocate who believes that development of "free, creative expression" is the major consideration. On the other hand, there is the advocate who believes art to be an educational subject furnishing valuable content material for effective understanding and participation in the activities of social life.

Both of these theorists are right except in the contention that only one of the approaches to the subject is essential in meeting present educational objectives.

All art educators believe in creative expression. Art itself is distinguished by its creative and expressional factors. However, the modern school is concerned with the problem of pupil adjustment to various aspects of social life of immediate and vital import. Free, creative expression comprises only one part of the rich and varied contacts which art contributes to the expanding life-experiences of the child.

Art is a broad educational subject which makes vital bequests to the necessities and the graces of living. In this sense it is both a practical and a cultural subject. Insofar as art furnishes teaching procedures which function as a way of living, it is a practical subject. The cultural implication of art appears in modes of teaching which result in finer tastes and an enriched background for living.

Art is both a learning and a doing subject. Creative expression and the productive and manipulative activities of art furnish experiences which contribute in significant ways to specific classroom attainment. Systematic instruction is necessary, however, to supply educational guidance for pupil behavior in reacting to a great variety of activities required of citizens. In many of these activities knowledge of art is a prerequisite for successful participation. Learning techniques are required which will carry over from classroom experiences to life-situations of many kinds. The aim is to put into the curriculum contributions that will aid pupils in their reaction to the world in which they live.

A simple approach to the problem is to consider the topic from the standpoint of the pupil. It becomes necessary to study children and to analyze their educational adjustment rather than to center attention exclusively on subject matter. What does art as a phase of school life do to the child? If art as taught in the school produces an individual who is different from the person who has not contacted the subject, then certain claims can be made with regard to its value as an activity of the school. The following questions bring into focus types of art education which students of the subject

are expounding in a way that promises progressive education through the study of art.

1. What *knowledge* can be given to the pupils which will create new attitudes toward life and which will function practically in meeting life-needs?

2. What *interests and appreciations* can be developed in the pupil which will enable him to enjoy life more fully?

3. What *creative habits and skills* can be acquired by the pupil which will aid in his expressional and productional abilities?

These questions suggest that the educational contributions of art may be divided into three broad phases which furnish the key to a complete and well-balanced presentation of the subject, namely, the functional experience, the appreciational experience, and the creative experience.

THE FUNCTIONAL EXPERIENCE

In a consideration of the value of any subject the most important point is what changes of behavior in pupils are established through the activities and experiences centering in the subject. Changes in behavior result from the acquisition of fundamental knowledge and from the development of attitudes toward life. Proper training in art furnishes one way of acquainting children with the world of which they are a part. It should give them a means of interpreting aspects of this world and a more effective way of reacting to their environment. In this respect art education is a functional subject.

Every teacher is aware of the difference between functional knowledge and mere facts. When knowledge functions, it becomes a valuable tool in pupil adjustment and attainment. The acquiring of facts is not the same as the acquiring of knowledge. Factual learning belongs with the formal discipline and the memorizing-reciting techniques which were outmoded during the past generation. The acquiring of knowledge of art concepts and of how to use them in meeting classroom and life-needs opens an entirely new field of art education.

The subject of art is filled with *basic concepts*, or *fundamental understandings*, which, if communicated to the child, will supply knowledge of inestimable value in the reconstruction of experience

to meet new needs. Even young children are frequently called on to make choices involving art considerations. As children grow older, ability to discriminate and exercise choice grows more and more important.

Good taste instantly separates individuals into two classes: those who understand and effectively utilize discriminating judgment in a great variety of activities required of citizens and those who have no standard for good taste and who almost invariably proclaim to the world their lack of discriminating judgment when choices are required. Strangely enough, some artists are to be found in the second class, and for the reason that they have learned the technical processes of art but have not acquired the fundamental knowledge of art and the ability to use that knowledge in meeting practical life-needs.

During the last decade the schools have become increasingly concerned with the learning factor, as well as with the doing factor, of art. This change in emphasis does not imply any less doing; it merely means the supplementing of the doing with appropriate learning situations, with which the field of art is uniquely endowed. A definite problem-solving technique which enables pupils to understand beauty and to exercise good taste has been introduced both in school projects and in activities related to life-needs.

This phase of the art program aims to establish *standards of aesthetic thinking*, which will enable the child to choose with confidence between the good and the inferior. Thus, visual and aesthetic faculties are developed in the child early in life. The cultivation of these faculties will have as its natural and inevitable result the appreciation and production of beauty.

THE APPRECIATIONAL EXPERIENCE

In recent years appreciation has become an important part of the teaching of art. This phase of the subject is often called "aesthetic education."

The appreciational experience is closely allied with the learning factor of art education. The child is taught the language of art or of beauty. He is taught to interpret this language just as he is taught to interpret any language. He is led to *observe* and to enjoy expressions

of beauty, both natural beauty and beauty in the arts. Observation, like any other ability, can be greatly increased by proper training and experience. Here the schools are concerned, not with promoting mere curiosity, but with teaching children to observe constructively with reference to various effects and their causes. In this field of art-teaching the aim is to throw open a door on a world of infinite beauty and to give to the child a *tool* which will enable him to penetrate and explore many delightful aspects of life. The aim is to endow the child with new attitudes toward life, to arouse new interests, and to establish new appreciations.

Aesthetic education introduces the pupil to an ever-widening experience in the discovery and the enjoyment of beauty. This experience will not stop with the school years; it will accompany the individual throughout his entire life as a source of pleasure and satisfaction in practical affairs as well as in leisure-time activities. The child's enjoyment of life is increased by giving him an aesthetic view of the world and by supplementing and enriching his intellectual and ethical attainments.

THE CREATIVE EXPERIENCE

The doing factor of art education deals with the "joyous adventure of creative expression," without which no individual can acquire the full measure of satisfaction in life. In the early history of the teaching of art, the doing of the art was the all-inclusive objective, but it was a very different kind of doing from the interrelated activities of the present-day educational program. The manipulative and productive activities of art are more important today than in any period of art-training. They enrich and expand the knowing and the appreciating aspects. Likewise, knowledge and appreciation of art and art quality contribute to and vitalize the doing of the arts. The aim is to produce in the child, as prerequisites to all art experiences, the art-understanding and the art-loving faculties.

With these faculties established, the child is able to enter into creative activities with an intelligent background and correct habits of thinking and doing in art expression. He has an essential foundation that will guide him in producing works of art, and, at the same time, he has good judgment or good taste, which is one of the highest attainments of culture in modern society in which he lives.

Spontaneous self-expression in art has been publicized extensively in connection with primary-grade work. However, educators have noted a marked retardation in self-expression in the upper grades of the school. Experience with large groups of children has shown that this desirable faculty continues to develop in older pupils in direct ratio to their ability to understand and apply with intelligence the fundamental concepts of art.

The practice of art may be introduced through drawing, painting, design, color, modeling, lettering, poster-making, and constructive and expressional activities of many kinds. Knowledge of fundamental concepts in these fields is not a hindrance but a functional guide to the spontaneous, creative activities of children.

A BALANCED APPROACH TO THE ART EXPERIENCE

Increasing emphasis on the social objective of education brings into new prominence the contribution which art may make toward the program of the elementary school. Recent development in the curriculum has done much to afford pupils an outlet for creative expression in the arts. Wonderful opportunity exists at the present time, through the correlation of art with socialized programs, to develop knowledge and appreciational faculties which will contribute to the broadening life-experiences of boys and girls.

Figure 1 indicates the possibility of organizing a balanced approach to art in harmony with the needs of the modern school. The functional objective of art furnishes a sound foundation upon which creative and appreciational experiences may be built. It supplies a *base or core of fundamental content material having infinite possibilities for incorporation into various programs of the school.*

A balanced approach to art results in the development of practical and usable knowledge, the creation of new attitudes toward life, and the acquiring of enjoyable interests and appreciations as well as useful habits and skills. It aims toward the all-round educational adjustment of the child in meeting life-needs and helps him to enjoy more fully the world of which he is a part. Since it begins with the basic essentials, there is no lost ground nor unnecessary repetition in expanding art work to meet the requirements of any type of curriculum organization.

However, the comment should be made that the mere stating of a functional theory and of the desired objectives for art-teaching will accomplish no results whatever. It becomes necessary for art educators and art teachers to make a careful study of the field of concepts,

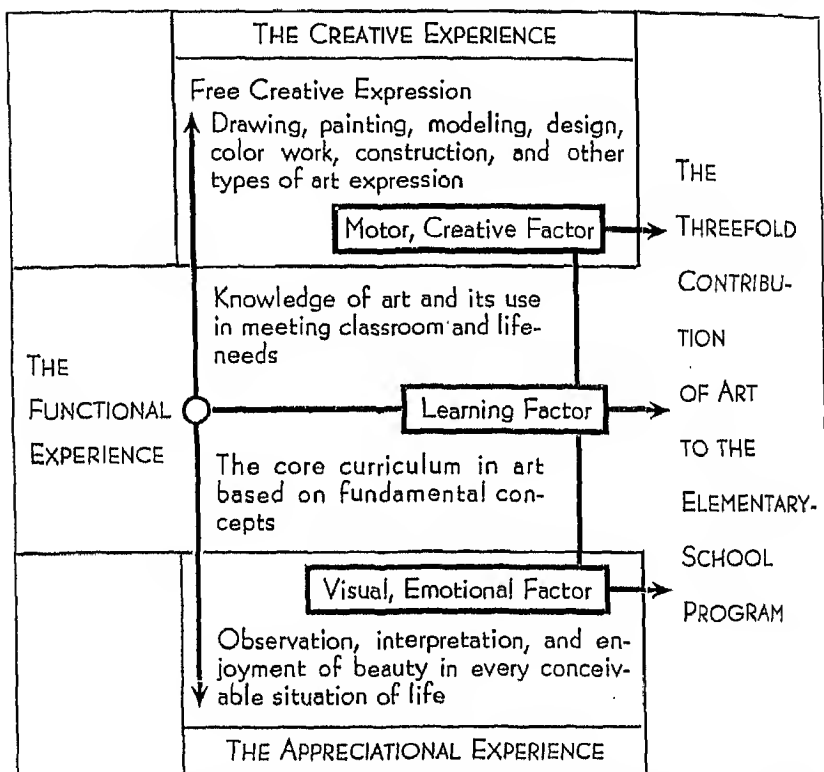


FIG. 1.—The functional experience of art education serves as a key for the adaptation of the subject to modern school needs.

as has been done in the sciences and other subjects. With the establishment of fundamental concepts appropriate for introduction into the different grades, constructive art-teaching will result.

In many schools of the country functional art programs are being introduced in the primary grades. In successive grades the program presents a balanced functioning of the art experience suited to the advancing educational attainment of the pupils.

The following comment pertaining to the training of art teachers is significant. It emphasizes the need for a new point of view in evaluating the contribution of art as a subject of the modern school.

The new school stands for interactive growth between the child and surrounding life. It consequently demands that art for its boys and girls be more than an accomplishment, more than motor overflow, mere response to directions, or illustration of the subject matter of other classes. It calls urgently for art both as a personally enriching experience and as a means of active contact with the developing social fabric. But art as a vitalizing force within the individual cannot be separated from art as a link with society, for fullest personal development comes only through articulation with the environment. . . . If the new school really wants art to bring functioning development, it must seek such ways of weaving the staunch and glamorous threads of art into the fabric of school life as will intensify and better living. . . .

Direct experience alone can prove how surely are joyous, functioning personalities built by creating in terms of the surrounding life. Once our children find themselves the companions of teachers with a creative concern about living, we need have no qualms as to the ways in which they will set to work bettering life.²

SUMMARY

The subject of art is characterized by *fundamental understandings* which contribute to pupil attainment in meeting modern objectives of education. These fundamentals should become the key for motivating the art experience whether it is introduced as a segregated subject or whether it becomes a part of the interrelated activities of the school. In either case art work is vitalized because it is based on essential considerations which will function through enriched classroom experiences and through increasing breadth and richness in the life-contacts of the pupil.

² Sibyl Browne, "Educating Teachers of Art for the New School," *Progressive Education*, XI (March, 1934), 176-80.

EDUCATIONAL, PSYCHOLOGICAL, AND PHYSIOLOGICAL FACTORS IN READING READINESS. II

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EMOTIONAL FACTORS

If the child is to develop emotionally, he must have every opportunity to become a well-adjusted personality. In training the emotions of children, teachers are working with the most powerful influences in life. Everything that is done or experienced by the child affects his present and future emotional attitude. The school is an important factor in developing the adjusted, integrated child. The school needs to assume more with respect to the child's intellectual development and give more attention to teaching him the art of happy and productive living. At the outset the child must have the "habit of success" in all his undertakings. If through its training the school gives the child the poise and the self-assurance that results from ability to accomplish the task set before him, he then learns to approach each task with confidence—an attitude which does much to aid accomplishment. This attitude of self-assurance will be secured by making certain of the complete readiness of the individual to take on any new learning. A readiness of interest gained through rich experiences and a readiness of psychological and physiological factors before beginning the reading process will do much toward developing the integrated, emotionally adjusted individual.

Educators must face the fact that many of the so-called "problem children" would not become problems if teachers realized more fully the effect of school practices on the child. Behavior maladjustments and undesirable attitudes may arise because the child does not fit

into the school program, and the reason he does not fit into the school program may be that he is not psychologically nor physiologically ready to take up the work. A child often develops antagonism toward teachers, subjects, books, and toward the whole school situation because of one irritating or hampering factor. This antagonism prevents the child from taking interest in his work and accomplishing the tasks set for him, and it may lead to undesirable forms of adjustment. He soon becomes a marked individual, and his school and social progress and adjustment are interfered with in a way that no amount of later work can undo. In adult life these unadjusted children become the unadjusted citizens. For the good of the child and of the group, it behooves the school to work for the development of all psychological and physiological factors of each child.

PHYSIOLOGICAL FACTORS

Vision.—Much of the current literature on the subject of reading readiness points to vision as the important physiological factor. It is said that the American people are a spectacle-wearing people because they are pushed into reading at an early age. The facts give some justification for this statement.

Investigation of the vision of school children began some years ago, but it is only recently that a movement has been started to make this work usable in determining reading readiness. Dr. F. Park Lewis, in a paper delivered in 1913 before the Fourth International Congress on School Hygiene at Buffalo, stated:

It is an accepted fact recognized by ophthalmologists everywhere that changes occur in the eyes of children during the period of their school life, of which the most prominent symptom is a steadily progressive development of nearsight. . . . Its beginnings are, primarily, at least due to congenital astigmatism and the consequent strain upon the accommodation of the eye in the effort to see. Its development is still further encouraged by the hours of constant daily application in reading and writing at that period in life when the tissues are plastic and easily molded [1: 6-7].^{*}

A report from the British Association for the Advancement of Science gives the following:

^{*}The figures in parentheses refer to the bibliography in Charles A. Smith and Myrtle R. Jensen, "Educational, Psychological, and Physiological Factors in Reading Readiness. I," *Elementary School Journal*, XXXVI (April, 1936), 583-94.

At the age when school begins, the visual apparatus is still immature. The orbits, the eyes themselves, and the muscles and nerves which move them have still to increase considerably in size. The various brain structures concerned in vision have not only to grow but to become more complex. The intricate co-ordinating mechanism which later will enable the eyes, brain, and hand to work together with minute precision is awaiting development by training. . . . In short, the whole visual apparatus is still unfinished and is therefore more liable than at a later age to injury by overuse. . . . At what age should children begin to read from books? From the hygienic point of view the later, the better, and there is reason to believe that little, if anything, is lost educationally by postponing the use of books in school until the age of seven at earliest [1: 26-27].

Dr. James Kerr, consulting medical officer of the London County Council, says with relation to the physical and educational issues:

By about seven years old [the eye] has reached within 3 per cent of its full weight. . . .

It is not only the prolonged use of the eyes on near and small objects but also their continued use in defective light which is one of the chief defects in modern education. . . . The importance of letters before the age of seven is exaggerated by teachers. . . . It would be better if they were not permitted to be read or written in school before this age [23: 469, 512, 553].

On the same problem Inskeep says:

The child enters the kindergarten at five with imperfectly developed eyes, "eyes in the making." At six he begins to read with eyes still imperfectly developed. . . . [Reading] requires that the eyes be focused on letters that are smaller than anything probably the child has ever looked at carefully and constantly before. Minute differences in these letters must be recognized instantly (as between *m* and *n* or *b* and *d*). The eye must run along a line with closest attention to detail, move from the end of one line rapidly to the beginning of the next. It must always go in the same order and recognize "no" as "no" and not as "on." The great wonder is that so few fall by the way [20: 219-21].

It has been repeatedly pointed out that myopia begins after the child enters school and increases as the child progresses from the lower to the upper grades. That the school is not alone responsible is shown by this quotation:

Some fifty years ago Cohn pointed out that the amount of myopia increases from the lower grades to the upper grades, and it was assumed that the school work tended to produce near vision. Later studies, however, have shown that in the curve of development the eye passes from a farsighted state, through normal vision, and then tends in many cases to become myopic. A study of two thousand one-day-old babies showed farsightedness to be the normal condition.

Marked myopic defects are found in many preschool children, uneducated peasants, and primitive races. The chief cause of myopia is the shape of the bone socket, which depends, as does any other such characteristic, upon heredity and growth [7: 438-39].

The school can be either an aid or a hindrance to growth possibilities.

The earlier investigations of the vision of school children directed the attention of educators to environmental conditions with the result that schoolroom conditions and equipment have been greatly improved in many sections. In many up-to-date districts the school buildings are well lighted, and all schools may have better-made books to suit the children of all levels.

The young child is ignorant of the proper use of the eyes. The six-year-old child tilts his head to one side, bends close to the book, and, in general, tries to make adjustments to do the required task. Often no complaint is made if the strain of close work in the schoolroom results in periodically blurred pages, smarting and burning eyes, or pain in the eyes or head. These things are accepted as part of school life, but some adults are recognizing these danger signals and are setting about making improvements for the child's benefit. These improvements will be preventives rather than cures.

Selzer's article in 1933 (33) and the Betts articles and Ready To Read Tests of 1934 and 1935 (2, 3, 4, 5, 6) give evidence of the present interest and discussion concerning physiological readiness to read. The vision of school children is at present tested by having pupils stand twenty feet from a Snellen chart and interpret what is seen with each eye independently. Betts claims to have devised tests which will detect defects of binocular (two-eyed) vision at reading distances of from three to sixteen inches:

In co-operation with the medical department, tests have been developed for the detection of visual defects by the classroom teacher. . . . [These defects are] visual superimposition (fusion of two images into one), visual acuity (keenness of vision), eye-muscle imbalance (horizontal and vertical), stereopsis (depth perception), hyperopia (farsightedness), myopia (nearsightedness), astigmatism, and eye regressions. All of these tests can be made with an inexpensive telebinocular (a modification of the stereoscope) with the exception of the tests for hyperopia, myopia, and astigmatism. Binocular (two-eyed) vision is necessary to pass them [3: 101].

These tests should have value in the determination of reading readiness, but more experimental evidence to back them is needed. At any rate, such testing is a move in the right direction and will no doubt lead to experimentation and the setting of standards in the field of vision.

Hearing.—Present-day findings indicate that the auditory mechanism is more immature at birth than is the visual mechanism. Hearing may not occupy so important a place in the perceptual world as does vision, but it takes in a larger portion of the environment. Hearing is closely related to language development and is of great value in building meanings of all sorts. Hence, hearing is also an important factor in the reading process. Hearing is implicated not only in the words used but also in the intonations of voice and shades of emphasis. A mental test requiring knowledge of language and meanings also tests hearing to a certain degree.

It would be well if every child entering Grade I or the grade where reading is to be taught could have an audiometer test which would isolate the various pitches and show the child's ability to hear sounds of high and low frequency. Many of the high-frequency overtones are the phonetic sounds of some of the letters of the alphabet and therefore give many words their significance. Often the studies of difficulties in reading show the inability of retarded children to discriminate phonetic elements.

Betts includes in his *Ready To Read Tests* auditory tests designed for the analysis of the pupil's memory span, ability to discriminate between fused sounds and keenness of hearing. Betts says:

Auditory imagery . . . is a third important factor in reading. . . . It is a well-established fact that a test of acuity does not provide an adequate index of the child's auditory capacities and abilities. Phonetic power (or the ability to fuse sounds into words), auditory discrimination (the ability to discriminate between sounds), and auditory span (ability to repeat correctly a succession of sounds) contribute directly to reading ability in the primary grades [3: 102].

While the maturation of hearing is a factor to be considered in the reading process, the danger of impairing the structural hearing faculties is not so important as is the possibility of impairing the structural visual faculties by giving a child too early a start on the concentrated work of mastering reading skills. There are, however,

other dangers of a functional nature. The child who cannot understand all that goes on about him is likely to form the habit of inattention. The reading lessons, because of his immaturity, may be in the class of things that he cannot understand; therefore he soon learns to pay no attention to them. If he is to learn all that he can from his environment, he must be ready to receive all stimuli and respond to them. If he becomes inattentive, he will miss things that may be of value to him. Inattention to educational stimuli is not one of the things that children should learn at school.

Motor co-ordination.—It is an established fact that refined co-ordinations are late in developing in the human being. "It is babyhood that has made man what he is" (12: 307). It is not the business of the school, then, to try in any way to hasten this development, wherein lies the essence of future development and progress. Rather, it should be the business of the school to work in harmony with that development. In 1898 John Dewey wrote:

Forcing children at a premature age to devote their entire attention to these refined and cramped adjustments has left behind it a sad record of injured nervous systems and of muscular disorders and distortions. While there are undoubted exceptions, present physiological knowledge points to the age of about eight years as early enough for anything more than an incidental attention to visual and written language form [9: 320].

A year later Patrick published this statement.

Reading and writing are subjects which do not belong to the early years of school life, but to a later period. . . . [Reading, writing, and drawing] involve, in the first place, a high degree of motor specialization. . . . If we reverse this order [of muscular development—from the larger to the smaller muscles] and compel the child to hold his body, legs, and arms still, while he engages the delicate muscles of the eyes and fingers with minute written or printed symbols, we induce a nervous overtension, and incur the evils incident to all violation of natural order [30: 385].

Since the appearance of these two statements much has been done, especially in experimental centers, to adjust the school to the child's needs. But what about the eighty or ninety minutes a day set as a standard for the first-grade reading allotment (31)? Does not this amount of time place too much restraint on the child for normal development? Can all teachers be depended on to break the period into properly spaced short intervals? The primary teacher

knows well that the typical group of first-grade children will be unable to master the first-grade reading skills in less time.

Consider such objectives as the following: "[To be able] to stand erect, hold book correctly and keep the place in the book with the thumb on the margin" (36: 49). Think of the self-control and fine motor co-ordination necessary to enable a child between six and seven years of age to read a first-grade story, or even a page, while maintaining these standards. For strain and endurance only adult military drill would compare with it. Some children are able to stand erect and hold the book correctly, but many have a hard time making adjustments. Can investigation determine the proper degree of development of motor co-ordination before the reading process should be begun? In the meantime, "All children are interested in things of sense. They should think through their hands. Their mental power should grow through creative activity, through experience rather than through books" (22: 466).

MATURATION

Maturation of the various psychological and physiological factors involved in the reading-readiness problem is of great importance. The normal child's education should keep pace with the maturation of these factors. Chronological, mental, physical, and emotional growth should show high positive correlations. Generally such correlations are present, but educational achievement and emotional and structural development may not keep pace with chronological age nor even with one another. These discrepancies produce disharmonies of development which later account for many of the problem children.

Lack of harmonious development makes the reading-readiness problem even more complicated. If it is finally determined that reading should begin when the child has a mental age of six years and six months, the maturation of the other factors must then be given consideration. It may be quite possible that a child's vision or muscular co-ordination is not matured to the extent that the child is ready to take on this refined, taxing work of reading. In fact, there are a number of considerations that probably are quite as important as mental age. Such factors as general and special abilities

and the problem of general achievement should be recognized as of fundamental significance. The use of but a single index of reading readiness ignores the fact that the whole child goes to school and that such factors as wants, interests, and attitudes, which have biological foundations, are fully as important in determining reading readiness as the traditionally used indexes.

SEX DIFFERENCES

Sex differences in the maturation of the various factors is also a matter that should receive attention. Studies show that preschool girls tend to have slightly higher median or mean intelligence scores on the Kuhlmann-Binet, Stanford-Binet, Merrill-Palmer, and Detroit Kindergarten tests. In early years girls surpass boys in all aspects of speech and language development. Studies show that this superiority includes beginning to talk, size of vocabulary, length of response, comprehensibility of response, use of parts of speech, sentence structure, functions of language, and discrimination of speech sounds (29: 329-73). Studies of motor development show that boys have more ability in tests requiring strength and larger co-ordinations and that girls have more ability in refined co-ordinations, such as buttoning clothes and steadiness in writing. No studies have been reported on sex differences in vision.

Studies of school progress show that in school more boys than girls fail, get low marks, are retained and retarded, need remedial-reading instruction, and become problem children. All these findings emphasize the fact that the school functions less effectively for boys than for girls. There are doubtless many reasons for this failure, but reading readiness is one that should be taken into account. It must become the business of the school to meet better the needs of boys by taking into consideration the maturation of psychological and physiological factors involved in reading readiness (7, 8, 10, 11, 14, 15, 17, 24, 25, 26, 29, 34, 35, 37).

CONCLUSIONS AND EVALUATIONS

1. The present educational approach to the reading-readiness problem is somewhat in opposition to scientific findings. Generally speaking, the school life of the child is beginning at an earlier age.

The tendency of schools is to provide those experiences and activities that will aid the child in his later school progress. Because of more and better books, better teachers, better techniques and methods, and higher standards of achievement, the child is made to feel the need of reading at an early age. Educators tend to place emphasis on area and depth of experience as the most-needed background for reading.

2. Contributions from the fields of psychology and physiology show the necessity of taking into account many mental, physical, and emotional factors involved in reading readiness. These factors must be considered separately and in relation to each other as well. The educator must come to realize that a mental test measures only one phase of reading readiness and that all other factors must be considered. There is a definite need for working out standards for each factor and combining these into usable form for educators.

3. Further research must determine the best mental age for beginning the reading process when due consideration is given to individual differences in development of vision, hearing, speech, and language, in motor growth, and in motor co-ordination, as well as differences in depth and area of experiences.

4. The indications are that the school of the future will need to break away from its present régime and set up new curriculums and programs at the lower levels. Two problems must be considered in this program: (a) The school must make provision for teaching the child to read whenever it has been determined that he is ready to take on the process without injury to his mental, physical, and emotional makeup and when he shows the interest which should come from rich and varied experiences. The school must make certain that every child has sufficient opportunity to master the reading skills when he is ready and not allow him to advance from grade to grade without mastering these skills. (b) The school must make provision at the first-grade level for new types of experiences and activities which will make adequate provision for the mental, physical, and emotional growth of the child above the kindergarten.

5. The new curriculum for the non-reading first grade must include experiences that will promote present and future mental, physical, emotional, and social development: (a) firsthand experi-

ences that are varied, satisfying, and complete for present living and that give promise for future development; (b) experiences and activities that provide for developing powers of discrimination, judgment, self-reliance, self-control, etc.; (c) experiences and activities that provide for understanding natural environment through firsthand contacts with living creatures, plant life, and nature in general; (d) experiences and activities that provide for understanding the man-made environment through firsthand contacts with community possibilities; (e) experiences and activities that open up interests in music, literature, and art; (f) experiences and activities that provide for free, spontaneous speech and language development under guidance and direction; (g) experiences and activities that provide for social development through actively living, playing, and working together; (h) experiences and activities that provide for free, unhampered physical development under guidance and direction; (i) experiences that provide for the habit of being happy; and (j) experiences that provide for the habit of successful accomplishment at higher and higher levels of attainment.

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The references in the following bibliography from the literature on exceptional children are classified as follows: publications concerned with (1) subnormal and backward children, (2) behavior and problem cases, (3) superior and gifted children, (4) the blind and partially seeing, (5) crippled children, (6) deaf and hard-of-hearing children, (7) delicate children, (8) speech defectives, and (9) general references. The references in the first three of these classifications were compiled and annotated by Dr. Hildreth; those in the fourth to the eighth classifications, inclusive, by Dr. Martens. Each of the two compilers supplied general references.

SUBNORMAL AND BACKWARD CHILDREN¹

214. ADLERBLUM, YETTA. "A Demonstration Class for Dull Children," *Educational Method*, XIV (October, 1934), 23-30.

Mentally retarded children of elementary-school age from ungraded classes in New York City were organized into a demonstration class for Teachers College, Columbia University. Methods of selecting the children and the program for training are described in detail.

215. BERRY, CHARLES SCOTT. "Helping the Mentally Retarded Child," *Nation's Schools*, XIII (May, 1934), 27-32.

Provisions for mentally retarded children, who constitute 2 per cent of all children enrolled in the public schools, include special classes, modified special classes, and individual programs. The latter two provisions are most suitable for small towns and rural districts.

216. BRADWAY, KATHERINE P. "Paternal Occupational Intelligence and Mental Deficiency," *Journal of Applied Psychology*, XIX (October, 1935), 527-42.

¹ See also Item 368 in the list of selected references appearing in the May, 1935, number and Item 366 in the May, 1936, number of the *School Review*.

The Minnesota Occupational Scale was used in classifying the occupations of the fathers of 439 feeble-minded children in the New Jersey Training School for Backward Children, at Vineland. A negative correlation was found between intelligence quotient and paternal occupational status.

217. BUDLONG, BERNICE. "Meeting the Needs of the Underprivileged Girl," *Practical Home Economics*, XIII (September, 1935), 251-52.

A home-economics program offered in junior high school was developed to meet the needs of girls for whom the traditional academic program is unsuited.

218. BURT, CYRIL. *The Subnormal Mind*. London: Oxford University Press, 1935. Pp. viii+368.

Includes descriptions of mentally deficient, backward, delinquent, and neurotic cases and gives recommendations for educational treatment.

219. FRANSEN, ARDEN N. "Mechanical Ability of Morons," *Journal of Applied Psychology*, XIX (August, 1935), 371-78.

The Minnesota Mechanical Assembly Test was used for the classification of feeble-minded boys in an institution for defectives. The hundred moron boys tested were inferior in mechanical ability as a group. Above a certain mental level there was little correlation between mechanical ability and intelligence.

220. HEGGE, THORLEIF G. "Results of Remedial Reading at the Middle Moron Level: A Case Study," *Journal of Juvenile Research*, XIX (July, 1935), 128-34.

A case study of a boy of low-grade foreign background and of moron intelligence level. Three years' intensive work was carried on with special attention to reading.

221. KELLY, ELIZABETH M. "The Improvement of Reading in Special Classes for Mentally Retarded Children," *Training School Bulletin*, XXXI (February, 1935), 186-91.

Achievement tests revealed that there were many non-readers among sixteen hundred subnormal school-age children. The lower the mental age, the higher the percentage of non-reading.

222. LANDELL, CATHERINE. "Why Ignore the Problem of the Subnormal Child?" *American School Board Journal*, XCI (August, 1935), 24-25.

A plea for better educational provision for subnormal children in the public schools. Special classes are recommended.

223. LONGWELL, S. GERALDINE. "Influence of Muscle Training on Birth-injured Mentally Deficient Children," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVI (June, 1935), 349-70.

At the New Jersey Training School for Backward Children, Vineland, New Jersey, ten mentally deficient children receiving therapy for motor handicaps due to birth injury were compared with ten control cases not treated. At the end of the training period the treated group gained 25 per cent in motor control; the non-treated, 15 per cent.

224. McELWEE, EDNA WILLIS. "The Constructive Ability of 150 Subnormal Children," *Journal of Juvenile Research*, XIX (January, 1935), 25-26.
A jigsaw puzzle was used in comparing the constructive ability of retarded children of varying chronological ages but of the same mental levels. Success increased with chronological age.
225. PENNSYLVANIA STATE DEPARTMENT OF PUBLIC INSTRUCTION. *Organization and Administration of Special Education Classes for the Orthogenic Backward*. Department of Public Instruction Bulletin 85. Harrisburg, Pennsylvania: State Department of Public Instruction, 1935. Pp. 92.
The principles basic to special-class organization, administration, and instruction for atypical and retarded children are formulated for the guidance of teachers and administrators of special classes in Pennsylvania.
226. SEARS, RICHARD. "Characteristics and Trainability of a Case of Special Reading Disability at the Moron Level," *Journal of Juvenile Research*, XIX (July, 1935), 135-45.
A report on a moron boy with special reading disability. The results of the special training are evaluated, and limits of trainability in reading are suggested.
227. STEWART, RUTH AXFORD. "Dedicated to the Low I.Q.," *English Journal*, XXIV (March, 1935), 204-7.
An experiment in modifying the first-term English course for a class of boys with low intelligence quotients in a high school in Newark, New Jersey.
228. WALKER, MARGARET M. *A Study of High School Failures*. Philadelphia: Temple University, 1935. Pp. x+114.
Forty-four per cent of a group of pupils who failed in high-school subjects were below normal in intelligence, whereas 11 per cent of a non-failure control group were below average. Other differences and similarities in the groups are summarized. Conclusions from other studies on the same topic are included.
229. WILDER, H. HUNTER, and STOWELL, GERALDINE. "Instruction in Band Music to Mentally Deficient Children," *Proceedings and Addresses of the Fifty-ninth Annual Session of the American Association on Mental Deficiency*, 1935, pp. 415-22.
Mentally deficient children to be given instruction in band music were selected by means of adaptability tests. Instruction was adapted to the players, who had a median intelligence quotient of 57.

BEHAVIOR AND PROBLEM CASES

230. ATWOOD, BARTLETT S., and SHIDELER, E. H. "Social Participation and Juvenile Delinquency," *Sociology and Social Research*, XVIII (May-June, 1934), 436-41.
A study undertaken to determine the degree of previous social participation in a group of one hundred delinquent boys.

231. BAKER, HARRY J., and TRAPHAGEN, VIRGINIA. *The Diagnosis and Treatment of Behavior-Problem Children*. New York: Macmillan Co., 1935. Pp. xiv+394.

Makes a plea for attention to behavior problems among children, with special emphasis on milder forms of problem behavior. Types of behavior problems are listed, and methods of treatment are outlined.

232. BELL, MARJORIE. "The Care of Delinquent Children in Tulsa, Oklahoma: Report of a Survey." New York: National Probation Association, 1934. Pp. 50 (mimeographed).

A survey of provisions for delinquent children in Tulsa undertaken for the purpose of bringing about reorganization for more satisfactory handling of cases of juvenile delinquency.

233. DAVIDSON, MARION. "The Relationship of Adjustment Status of Child Guidance Clinic Cases to Age, Mental Capacity, and School Placement," *Journal of Juvenile Research*, XIX (July, 1935), 160-70.

Problem children who showed the best response to guidance undertaken by the California Bureau of Juvenile Research were those below fifteen years of age, those of normal or superior intelligence, and those with school placement below Grade VII but in harmony with mental age.

234. *The Delinquent Child and the Institution*. Division Publication No. 1. Albany, New York: State of New York Division of Administration of State Institutions, 1935. Pp. 76.

A pamphlet comprised of reports made at a conference on work with delinquent children in New York State institutions. A bibliography on the general topic is appended.

235. DUREA, MERVIN A. "A Survey of the Extent and Nature of Offenses Committed by Delinquent Boys," *Journal of Juvenile Research*, XIX (April, 1935), 62-74.

An analysis of 1,148 offenses committed by 368 boys in an institution for juvenile delinquents. The most common offenses were stealing, incorrigibility, burglary, truancy, and larceny. A negative correlation was found between seriousness of offense and incidence.

236. DUREA, MERVIN A. "Mental and Social Maturity in Relation to Certain Indicators of the Degree of Juvenile Delinquency," *Child Development*, VI (June, 1935), 154-60.

A study of the relation between delinquency and mental and social maturity in a group of 365 delinquent white boys committed to a boy's industrial school. The mean intelligence quotient of the group was 86.8. Results from a developmental age scale showed the group to be less socially than mentally retarded. The degree of mental and social maturity bore little relation to the degree of delinquency.

237. *Facts about Juvenile Delinquency—Its Prevention and Treatment*. Bureau Publication No. 215. Washington: United States Children's Bureau, 1935 (revised). Pp. vi+44.

The topics treated include the nature and the extent of juvenile delinquency, preventive programs, treatment of delinquency cases in the community by agencies and institutions.

238. FENTON, NORMAN, and OTHERS. *The Delinquent Boy and the Correctional School*. Claremont, California: Claremont Colleges Guidance Center, 1935. Pp. 182.

A description of the Whittier State School for delinquent boys. Includes a history of the development of the school, a statistical analysis of characteristics of four hundred boys, and a discussion of academic and vocational education problems in a correctional institution.

239. FOREMAN, PAUL B. "The Administration of Juvenile Male Delinquency Cases in the Courts of Oregon," *Journal of Juvenile Research*, XIX (July, 1935), 121-27.

In thirty-four of thirty-six counties in Oregon local responsibility for administration of juvenile male delinquency cases rests with the county judge. Implications of this fact are discussed.

240. HEALY, WILLIAM; BRONNER, AUGUSTA F.; and SHIMBERG, MYRA E. "The Close of Another Chapter in Criminology," *Mental Hygiene*, XIX (April, 1935), 208-22.

A study similar to that reported by the Gluecks in *One Thousand Juvenile Delinquents* (Item 194 in the list of selected references appearing in the May, 1935, *Elementary School Journal*) was undertaken by the Judge Baker Guidance Center. Most of the findings of the Glueck report were corroborated.

241. HILL, GEORGE E. "Vocational Experience and Interests of Delinquent Boys," *Journal of Juvenile Research*, XIX (January, 1935), 27-32.

More than half of fifteen hundred young male offenders sentenced to a reformatory had started to work while they were still of school age. The author stresses the need for more and better vocational guidance in schools.

242. KEOGH, CORNELIA R. "A Study of Runaways at a State Correctional School for Boys," *Journal of Juvenile Research*, XIX (April, 1935), 45-61.

Runaway boys at Whittier State School of California differ but little as a group from a control group representing the general population of the school. The two groups were similar in intelligence quotient, age, race, parental occupation, and distance of home from school.

243. KIRKPATRICK, MILTON E., and LODGE, TOWNSEND. "Some Factors in Truancy," *Mental Hygiene*, XIX (October, 1935), 610-18.

As a result of studying 2,381 truancy cases, the conclusion is reached that nearly all confirmed truants were misfits in school; that it is futile for the juvenile court to deal constructively with the problem until the school curriculum and promotion standards are modified.

244. LANE, HOWARD A., and WITTY, PAUL A. "The Mental Ability of Delinquent Boys," *Journal of Juvenile Research*, XIX (January, 1935), 1-12.
Delinquency and low mental status as measured by tests tend to be related. However, in a population of 699 delinquent boys the mental rating was no lower than that for non-delinquents from the same racial and environmental groups. Other data relate to mental-test comparisons of recidivists and non-recidivists, broken versus unbroken homes.
245. LODGEN, GEORGE E., and ALPER, BENEDICT S. "Survey of Juvenile Probation in 65 Counties of Pennsylvania," *Journal of Criminal Law and Criminology*, XXVI (November, 1935), 538-55.
Describes procedures in the juvenile courts and probation departments of Pennsylvania. The report covers personnel, procedure in bringing a child to court, detention, hearing, investigation, supervision, records and forms, methods of holding a child for court, and court hearings.
246. LOTZ, EDNA RICKEY. "Emotional Status of the Parents of Problem and Psychopathic Children," *School and Society*, XLII (August 17, 1935), 239-40.
A report is given of 112 intellectually and physically normal children who showed behavior and personality maladjustment. Parents of 62 of the children regarded as unstable were themselves markedly maladjusted. The author attributed 47 of 48 psychopathic cases to defective heredity.
247. OAS, REYNOLD G. "A Study of Juvenile Delinquency in Van Buren County, Michigan," *Educational News Bulletin*, V (June, 1935), 2-7. Kalamazoo, Michigan: Western State Teachers College.
A delinquency survey in a Michigan county based on detailed case histories of 130 juvenile delinquents appearing in the juvenile courts between 1924 and 1934.
248. PECK, LEIGH. "Teachers' Report of the Problems of Unadjusted School Children," *Journal of Educational Psychology*, XXVI (February, 1935), 123-38.
Each of 175 teachers contributed a case study of a maladjusted pupil and stated the problems which caused the child to be considered maladjusted. Among 698 problems reported, 53 per cent were listed as undesirable personality.
249. PORTENIER, LILLIAN G. "The 'Problem Child' at the Preschool Level," *Journal of Applied Psychology*, XIX (February, 1935), 93-100.
Potential problem children at the preschool level were diagnosed by observation, rating, testing, and other means. Results of two projects utilizing the newer observation techniques are evaluated.
250. SELDON, HENRY D., JR. "Problems in the Statistical Study of Juvenile Delinquency," *Metron*, XII (1934), 201-23.
Data on 6,903 male juvenile delinquents in Cleveland, Ohio, for the years 1928-31, inclusive, were statistically treated to determine the degree of association

between delinquent tendencies and certain background factors, economic status, family and social disorganization, nationality, size of family, and recidivism.

251. SMITH, ENID SEVERY. *A Study of Twenty-five Adolescent Unmarried Mothers in New York City*. New York: Salvation Army Women's Home and Hospital (314 East Fifteenth Street), 1935. Pp. 98.

Data relating to the homes, companions, recreations, and personal traits were obtained for a group of adolescent unmarried mothers and compared with similar data for a control group of one hundred Girl Reserves. The implications of the findings for education are given, and the literature on the subject of the report is summarized.

252. STULLKEN, EDWARD H. "How the Montefiore School Prevents Crime," *Journal of Criminal Law and Criminology*, XXVI (July, 1935), 228-34.

A description of the services in the Montefiore School, a special school connected with the public-school system of Chicago, and an evaluation of some of the results so far obtained. Progress of pupils on return to regular classes and conduct subsequent to enrolment in the school are considered.

253. YOUNG, ERIE FISKE. "The Co-ordinating Council Plan in Los Angeles County," *Journal of Criminal Law and Criminology*, XXVI (May, 1935), 34-40.

Description of a co-ordinating council for dealing with juvenile delinquency organized in Los Angeles County to unite the many varied agencies handling delinquency problems.

SUPERIOR AND GIFTED CHILDREN

254. DE LA MARE, WALTER JOHN. *Early One Morning in the Spring*. New York: Macmillan Co., 1935. Pp. xx+606.

A book chiefly about children who were prodigies in youth or who became famous as adults. Included are biographical data, pictures, and excerpts from the children's diaries and early writings.

255. HOLLINGWORTH, LETA S. "The Comparative Beauty of the Faces of Highly Intelligent Adolescents," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVII (December, 1935), 268-81.

Photographs of forty gifted and twenty average adolescents from the same population were rated for beauty of face by ten judges. The faces of the highly intelligent were judged more beautiful than those of the ordinary group.

256. LAMSON, EDNA E. "High School Achievement of Fifty-six Gifted Children," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVII (September, 1935), 233-38.

A group of children who attended public-school classes for gifted children organized in 1922 maintained a record in scholastic achievement significantly superior to that of a control group.

257. LINCOLN, EDWARD A. "The Stanford Binet I.Q. Changes of Superior Children," *School and Society*, XLI (April 13, 1935), 519-20.

Supplements the author's preliminary study (in *Journal of Experimental Education*, I [March, 1933], 287-92) of Stanford-Binet intelligence-quotient changes of superior children. Results of the present study indicate that mean and median intelligence quotients for the boys are slightly higher on the final than on the first test. The mean for the girls showed a five-point drop, the median a four-point drop, but the group as a whole remained in the superior classification.

258. LINCOLN, EDWARD A. "A Study of Changes in the Intelligence Quotients of Superior Children," *Journal of Educational Research*, XXIX (December, 1935), 272-75.

Additional data relating to changes in the Stanford-Binet intelligence quotients of gifted children are reported in this paper. Over a period of five or more years there is more loss than gain.

259. MERRY, FRIEDA KIEFER. "Summer Classes for Gifted Children," *Educational Method*, XIV (April, 1935), 388-90.

A description of a summer class for a group of gifted children, showing how these classes can develop as part of the regular school system.

260. MYERS, GARRY CLEVELAND. "The Social Problem of the Gifted Child," *Journal of Exceptional Children*, II (October, 1935), 39-43.

The author believes that the best all-round development of the gifted child results when he works at school at his own rate but in a regular class of normal children.

261. WITTY, PAUL A. "The Relative Frequency of Gifted Boys and Girls in the Secondary School," *Educational Administration and Supervision*, XX (November, 1934), 606-12.

Data for more than twenty-seven thousand boys and girls in Grades IX-XII do not indicate that at the high-school level the proportion of gifted boys is much greater than the proportion of gifted girls nor support the hypothesis of disproportionate male variability at the high-school level.

BLIND AND PARTIALLY SEEING CHILDREN

262. FRENCH, R. S. "Some Fundamental Considerations in the Reconstruction of the Educational Program of a Residential School for the Blind," *Teachers Forum for Instructors of Blind Children*, VIII (November, 1935), 37-39.

Presents an outline of requirements, regarded as ideal by the author, for the "educated man" whether he be blind or seeing. School programs should be built on these fundamentals, on the basis of which education may lead toward fulness of living rather than to the attainment of material things.

263. HAYES, SAMUEL P. "How To Handle Test Results—a Plea for the Wider Use of Group Tests," *Teachers Forum for Instructors of Blind Children*, VII (May, 1935), 82-85.

Recommends the use of group tests for teachers of the blind, presents results of such tests given in certain schools for the blind, and suggests general procedure in dealing with test scores.

264. KASTRUP, MARGUERITE. "A Study of Occupations of Partially Sighted Boys and Girls," *Sight-saving Review*, V (September, 1935), 195-203.

A report of a questionnaire study conducted among the teachers of sight-saving classes in Ohio. A total of 233 questionnaires were analyzed, giving information concerning the employment of former pupils in sight-saving classes. Lists of occupations are given in which former pupils were engaged. Occupations considered satisfactory for myopes and for those having low vision are indicated in the list.

265. LESOWITZ, MEYER. "The Blind Student in the High School," *High Points*, XVII (March, 1935), 11-15.

The author believes education of the blind in a residential school for the blind to be objectionable. He thinks that they should be trained in the regular public schools along with seeing children, making use of special aids and special adaptations of material in their training. Describes special procedures followed in the Evander Childs High School, New York City.

266. MAXFIELD, KATHRYN E. "The Welfare of the Visually Handicapped Pre-School Child," *Teachers Forum for Instructors of Blind Children*, VII (March, 1935), 69-71.

Discusses the problems encountered in the Arthur Sunshine Home for Blind Babies in promoting the welfare and training of the children enrolled. Mannerisms and personality problems developing with blindness need special guidance, which is most effective if it can be given early in the life of the blind pre-school child.

267. MERRY, RALPH VICKERS. "The Philosophy of an Activity Program for Blind Children," *Teachers Forum for Instructors of Blind Children*, VII (March, 1935), 66-68.

Calls attention to certain factors that should be considered in introducing progressive methods of education into a school for the blind. Emphasizes the fact that methods cannot be transferred from seeing children to blind children without change and adjustment to the avenues of learning open to the blind child.

268. PECK, OLIVE S. "Arithmetic Ability of Sight-saving Class Pupils in Cleveland, Ohio," *Sight-saving Review*, V (June, 1935), 133-40.

A reproduction in large type of the Stanford Achievement Test in arithmetic was used in a testing experiment with pupils from Grade IV B through Grade IX A in Cleveland sight-saving classes. Tests were administered in June, 1933,

and June, 1934. The results are summarized and evaluated. They point to the conclusion "that these pupils work to the limit of their mental ability, when given enough time and when material is in a form which they can see, regardless of the eye defect."

CRIPPLED CHILDREN

269. MARTENS, ELISE H. "Special Classes for Crippled Children," *Public Health Nursing*, XXVII (September, 1935), 457-62.

A statement of the purpose of special classes, of their advantages and limitations, and of the need of the child for both specialized treatment and normal community life. The author advocates the type of special education that will segregate only as long as it is necessary to segregate and that will return the child to the regular school as soon as he can, with safety and profit, carry on his work there.

270. MASTEN, MABEL G. "The Nature and Complications of Spastic Paralysis," *Journal of Exceptional Children*, II (December, 1935), 70-72.

Considers the various conditions characterized by spastic paralysis, some of the common causes of the disorder, and the application of these facts to educational practice.

271. PECK, ELEANOR BURNHAM. "Nursery Schools for Crippled Children," *Crippled Child*, XIII (October, 1935), 85-87.

Report of a survey of the extent and the work of nursery schools for crippled children throughout the country. Gives names of institutions in which such schools have been established, lists desirable equipment, and describes activities carried on.

272. ROGERS, GLADYS GAGE, and THOMAS, LEAH C. *New Pathways for Children with Cerebral Palsy*. New York: Macmillan Co., 1935. Pp. xx+168.

Written by the director of Robin Hood's Barn and the director of therapeutics at the same institution—a camp school for children with cerebral palsy. Describes methods used for children so afflicted.

273. SCOTT, JAMES A. "The Problem of Orthopedic Play," *Crippled Child*, XII (April, 1935), 143-45, 165.

Describes a project carried on in St. Louis to satisfy the recreational needs of crippled children through the operation of summer playgrounds at the orthopedic centers. Considers the principles on the basis of which the activities were planned, the program developed, and the results accruing from it.

274. SHIRLEY, FRANCES E. "Musical and Dramatic Education of Crippled Children," *Crippled Child*, XIII (August, 1935), 48-50.

The author discusses the importance of music and dramatics in the lives of crippled children as avenues of creative expression and of reconstructive work. Considers some of the difficulties involved and the desirable methods of approach.

DEAF AND HARD-OF-HEARING CHILDREN

275. ANDERSON, TOM L. "Vocational Needs of Today," *American Annals of the Deaf*, LXXX (March, 1935), 105-15.
Considers readjustments which schools for the deaf should make to prepare their pupils for placement in the jobs which are open to the deaf today. Stresses the need for more training in the humbler tasks of life and for better adjustment to home and community living.
276. BALLENGER, LULA, and ZIMMER, LOUISE. "Socializing the Deaf and the Hearing Child," *Volta Review*, XXXVII (July, 1935), 397-400, 440-41.
An account of an experiment in the Madison Elementary School in Kansas City, in which deaf and hard-of-hearing children are housed with normally hearing pupils. The objective was to bring about a happier adjustment and fellowship between the deaf and the hearing children.
277. CONNERY, JULIA M., and YOUNG, IRENE B. *Voice Building*. Washington: Volta Bureau, 1935. Pp. 90.
Using the psychological development of the child as a point of departure, the authors consider the mechanics of voice production, methods of building the speaking voice, and suggestions for a program of voice-building.
278. MACDONALD, CHARLES E. "Counseling the Deaf," *American Annals of the Deaf*, LXXX (March, 1935), 95-104.
The principal of the British Columbia School (Vancouver) sets forth the need for vocational counseling in schools for the deaf and makes suggestions regarding methods, organization, equipment, interviews, and other factors involved.
279. MOOSEAU, MINNIE L. "Hearing Conservation in Pasadena," *Volta Review*, XXXVII (September, 1935), 535-36, 550.
Describes the hearing-conservation program which has been in effect in the Pasadena school system for the past ten years. The children constitute a home-room unit known as a "hearing-conservation class," in which lip reading and speech are taught to all and supplemental instruction in subject matter is given as needed. From this class each child goes out into the regular classes of hearing pupils as he is able to profit by the instruction given in particular fields.
280. PECK, ANNETTA W. "Audiometer Problems," *Public Health Nursing*, XXVII (October, 1935), 534-38.
Describes a CWA project in which 176 unappointed teachers were used to test the hearing of more than 600,000 school children in 595 schools, under the leadership of the New York League for the Hard of Hearing.

DELICATE CHILDREN

281. BISHOP, LOUIS FAUGERES, JR. "Hobby Guidance for Children with Handicapped Hearts," *Occupations*, XIV (December, 1935), 233-37.
Points out the values of hobbies for "improvement in physical and mental health, education (which includes skill), happiness, better balance, broader

viewpoint, congenial companionship, and harmony in the family." Suggests possible hobbies and ways in which an interest in them can be aroused for children with cardiac difficulties.

282. NESS, JESSIE A. "Occupational Therapy for Children," *American Journal of Nursing*, XXXV (December, 1935), 1109-16.

Discusses desirable activities for convalescent children designed to aid recovery and at the same time to interest and provide recreational outlets.

283. STRACHAN, LOUISE. "New Ways for Old in the Care of Delicate Children," *Journal of Exceptional Children*, II (December, 1935), 60-65.

The director of Child Health Education of the National Tuberculosis Association discusses the development of the movement for open-air schools. Increasing emphasis has been placed on rest as an important addition to fresh air and food in the treatment of delicate children. Sentiment has grown, too, toward provision for these children in the regular program of the school instead of in special classes. Finally, the importance of a health program for *all* children is emphasized.

284. WALLIN, J. E. WALLACE. "The Support of Fresh-Air Classes during the Economic Depression," *Elementary School Journal*, XXXV (April, 1935), 597-605.

Sets forth information received by means of questionnaires from twenty-three cities of the Middle West, the East, and the South, with populations between seventy thousand and seven million, concerning present status of fresh-air classes.

SPEECH DEFECTIVES

285. BLANTON, SMILEY, and BLANTON, MARGARET GRAY. *For Stutterers*. New York: D. Appleton-Century Co., Inc., 1936. Pp. xii+192.

Addressed primarily to stutterers and based on the author's theory that stuttering is caused by some emotional disturbance. Discusses treatment on this basis, looking toward the recovery of normal speech. Considers also other theories of cause and treatment.

286. BRYNGELSON, BRYNG. "A Method of Stuttering," *Journal of Abnormal and Social Psychology*, XXX (July-September, 1935), 194-98.

Discusses a unique type of therapy for the relief of stutterers based on the practice of voluntary stuttering by the patient, which appears to set up a center of speech control. The author believes that "stuttering is a deep-seated neurological disturbance of the central nervous system."

287. BRYNGELSON, BRYNG. "Sidedness as an Etiological Factor in Stuttering," *Pedagogical Seminary and Journal of Genetic Psychology*, XLVII (September, 1935), 204-17.

A discussion of sidedness and its relation to stuttering based on an analysis of seven hundred clinical stuttering patients. The author's experience leads him to believe that "the best guaranty for normal reading, writing, and

speaking is one-sidedness . . . " and he recommends "to parents and teachers that they give every child complete freedom to express spontaneously a preference for one side in motor activities."

288. BRYNGELSON, BRYNG. "Speech Problems and Speech Care," *Hygeia*, XIII (October, 1935), 888-90.

Reviews the common types and causes of speech disorders and gives suggestions to teachers and parents of children with speech handicaps. Cautions against a shift of a child's handedness, which disturbs the pattern of brain dominance.

289. TRAVIS, LEE EDWARD. "A Point of View in Speech Correction," *Quarterly Journal of Speech*, XXII (February, 1936), 57-61.

"In the diagnosis and treatment of a person with a speech defect . . . one must be aware of the two fundamental principles: that of individual variation and that of individual unity. Hence, it is most essential to consider a speech defect as a deviation of the whole person." On the basis of this principle, the author emphasizes the need of studying the total personality and of reorganizing "the damaged person into a new unified whole."

GENERAL REFERENCES

290. BERRY, CHARLES SCOTT. *How the Teacher May Help the Exceptional Child*. Columbus, Ohio: Ohio State University Press, 1935 (revised). Pp. 24.

Prepared primarily to aid the regular grade teacher in the education of exceptional children who are in her classroom.

291. CORNELL, ETHEL L. *Special Provision for Mentally Retarded and Gifted Children in New York State*. University of the State of New York Bulletin, No. 1070. Albany, New York: University of the State of New York Press, 1935. Pp. 36.

A study undertaken by the Regents' Commission on Mentally Retarded and Gifted Children to determine needs for special provision for exceptional children in the state. Replies to a questionnaire relating to the incidence of exceptional children and special-class provisions were returned by 178 communities.

292. FREEMAN, FRANK S. "Who Is the Exceptional Child?" *Educational Administration and Supervision*, XXI (December, 1935), 672-85.

"The purpose of this article [is] to point out and characterize briefly the principal types of exceptional children who are to be found in our public schools." Emphasizes the need and the value of special educational facilities for the groups under consideration.

293. MARTENS, ELISE H. (Compiler). *Co-ordination of Effort for the Education of Exceptional Children*. United States Office of Education Bulletin No. 7, 1935. Pp. vi+82.

Report of a conference called by the United States Office of Education to consider the possibilities of greater co-ordination of effort among the national agencies devoted to the interests of various types of exceptional children.

294. MARTENS, ELISE H. "For Exceptional Children," *School Life*, XXI (December, 1935), 86, 92.

A consideration of the organization within state departments of education directed toward promoting special educational facilities for exceptional children on a state-wide basis. Proper administrative and supervisory services are highly important to the successful development of the program.

295. MARTENS, ELISE H. "Co-ordination for Exceptional Children," *School Life*, XXI (January, 1936), 126-28.

Discusses existing plans for co-ordinating services directed toward adjustment for exceptional children. Both state and local phases of the problem are considered as it is related to the educational program.

296. MARTENS, ELISE H. "Exceptional Children and the Depression," *School Life*, XXI (February, 1936), 156-57, 161.

Discusses the developments that have taken place in the education of exceptional children since 1930. The statistics cited show that the program has, on the whole, moved steadily ahead in spite of necessary curtailments in individual localities.

297. *Smith College Studies in Social Work*, V and VI (1934-35 and 1935-36).

Students of the Smith College School for Social Work have been engaged for several years in studying the effectiveness of treatment in child-guidance clinics throughout the country. Included in the resulting publications are reports relating to study and treatment of behavior problems; psychotic, nervous, and unstable children; children with delinquent tendencies; foster children; bright children who fail at school, and truants.

Educational Writings

REVIEWS AND BOOK NOTES

A treatment of education during the child's early years.—Current movements in psychology and social reorganization are constantly adding to the interest and challenge of teaching in the lower school. This level of education has progressed to such an extent that it now demands the attention of the most intelligent of highly trained specialists. Ilse Forest has prepared a book¹ to assist teachers and supervisors of lower-school work who desire information concerning the means through which nursery school, kindergarten, and primary work may be integrated.

As the title indicates, the author includes the nursery school as well as the kindergarten in her discussion. The general contents of the book are suggested by such chapter headings as the following: "The Changing Primary School," "Method and the New Curriculum," "Planning the Units of Work," "The Housing and Equipment of the Lower School," "Number, Science, and Health Education in the Lower School," "Character Education in the Lower School," "Records and Record-keeping," and "The Profession of Lower-School Teaching."

The chapter on "The Changing Primary School" traces the growth of primary education, showing how its scope has been broadened, its methods improved, and its emphasis shifted from the curriculum to the child. The author states that "these changes have been wrought through the progress of educational psychology, the growth of the humanitarian attitude, and the coming of a democratic philosophy of education" (p. 35). Again she states, "We now think that a child is best prepared for the future by living fully and contentedly in the present" (p. 35).

The problem of integration at the lower-school level, which is one of the most important of present-day educational problems, brings up these questions for consideration: How can the school at each age level engage the child's time and attention most profitably? Which activities does he undertake at each age level with the greatest interest and with profit to himself?

The proper use of materials must be considered in endeavoring to answer

¹ Ilse Forest, *The School for the Child from Two to Eight*. Boston: Ginn & Co., 1935. Pp. x+286. \$1.80.

these two questions, for they in turn introduce such minor queries as: What medium of expression—for example, clay, paint, or crayon—can the two-year-old and the three-year-old children use most effectively? Do they use the material spontaneously? Will the manipulation of the material give them skill that will enable them to make better use of the material in the following year or will they merely exhaust its possibilities for enjoyment? If the children show increasing pleasure in the use of a toy or a piece of apparatus and increasing control of the object, then it is well chosen. If they eventually tire of it or use it boisterously, it is inappropriate.

If, between the ages of two and seven, the child is to attend nursery school, then kindergarten, and then primary school, what is the best use to make of his time? The four-year-old child who has attended nursery school for two years has learned habits of behavior in a group and has had experience with plastic materials. The big problem, therefore, is how to enrich his experience so that the next three years will not duplicate what he has had. One group of educators would solve the problem by pushing the formal work of the school downward. However, there are many experts in the field of early childhood education who would object to this plan, since "the five-year-old child has by no means exhausted the possibilities of construction, the beginnings of art and the industrial arts, music, and the enjoyment of nature-study explorations" (p. 71). The author of this book explains the child's need for further social intercourse with children of his own age and for plenty of vigorous play. One of the best things in the chapter on "Integrating the Work of the Lower School" is the discussion of the advisability of encouraging reading ability in the bright five-year-old child. Because of his desire to read and the ease with which such a child learns, he will carry on the activity of reading to the exclusion of activities more valuable to him at this age, such as participation in group play. The encouragement of a solitary activity will tempt children away from contacts with other children, and emphasis on reading may well be postponed until later. "Skipping" a year of school work is mentioned as a possible program for the most capable children by allowing them to enter a regular first grade at the age of five. Arguments for and against this procedure are discussed, the conclusion being that, since growth is a gradual process, skipping at any age level has undesirable features.

Certain points set forth in the chapter on "Method and the New Curriculum" will be challenged by some leaders in educational thought. This statement, in particular, is open to discussion: "Sometimes practically all the work of a grade is fused in the unit; that is, each school subject is taught only as it affects the unit" (p. 93). This view naturally means that the introduction of the activity curriculum breaks down subject-matter barriers. As a result of this plan there is likely to be a lowering of standards of attainment in spelling, writing, arithmetic, and reading. The author puts the question up squarely to superintendents and teachers: Should they be willing to sacrifice this loss in favor of the activity program?

Throughout the volume the author emphasizes the responsibility in educa-

tion of the lower-school teacher and shows how gifted and well-trained teachers may contribute to educational progress. Taken as a whole, the book may be recommended as a well-rounded and stimulating treatment of education during the child's early years.

GRACE E. STORM

Confused thinking concerning pupil-progress plans.—School administrators and teachers do not seem to be clear in their thinking about the essential elements in a good plan for providing for the continuous progress of pupils through the curriculum of the elementary school. The confusion is doubtless due, in part at least, to a conflict between two basic philosophies concerning the control of the learning activities of pupils. Before the advent of the scientific investigation of school practices and of the nature and capacities of the learner, schools were organized into school grades that provided for the annual grade-by-grade progress of pupils through the curriculum. This organization assumed that failure to progress regularly would generally be due to lack of effort on the part of the pupil concerned. Scientific investigation disclosed, however, that pupils differ enormously both in rate of learning and in capacity to learn and that this difference accounted for the large percentage of over-ageness typically found in practically all school systems a few years ago. That attempts to adjust the school to the pupil would come into conflict with the traditional grade organization and with the prevailing administration of pupil progress should perhaps have been expected; but that these attempts should lead administrators and teachers to endeavor to resolve the dilemma by makeshift devices and by the mental phenomenon known as "rationalization" should be surprising. Yet a recent study¹ shows that not only are there many plans for providing for pupil progress through the grades but that often teachers and administrators in the same school system do not agree on what the plans are or how they should be administered or, for that matter, why they should be used at all.

This most recent study of prevailing practices involving pupil progress through the grades grew out of discussions of a round-table organization of school superintendents in northern Illinois. It represents a co-operative study of the problem under the chairmanship of the author of the report. By means of a carefully prepared questionnaire sent to the superintendents, principals, and teachers in the thirty-five co-operating elementary-school districts, the committee in charge of the study was able to ascertain both the practices in the schools and the theories concerning these practices held by the three groups of school people concerned. The following questions were studied: ages at which children were admitted to the kindergarten and to Grade I; criteria used for promotion by teachers and theories concerning promotion held by all three groups; the existence or nonexistence of regulations concerning promotional practices set by the school board, the superintendent, or the principal to govern

¹ Henry J. Otto, *Promotion Policies and Practices in Elementary Schools*. Educational Monographs, No. 5. Minneapolis, Minnesota: Educational Test Bureau, Inc., 1935. Pp. xii+172.

teachers in promoting pupils; marking systems and the determination of the passing mark; age-grade status of pupils in schools using annual promotions and semiannual promotions; attempts at pupil adjustments as a corrective of promotional practices; and what, if any, attempts are made to articulate the work of sequential grades to avoid the break in continuous development of the pupil.

From what has been intimated, the reader will understand that the study discloses the variety of promotional practices among school systems and among teachers in the same system; that the theories concerning promotion held by the superintendent, the principals, and the teachers in the same system often differ; that, generally, teachers are not guided in promotional practices by regulations set up for them by the school authorities; that little or no attempt is generally made to acquaint the receiving teacher with the current status and significant characteristics of the promoted pupil; in short, that the whole question of school promotions is confused both as to practice and as to basic philosophy.

While the study is limited in scope, it was carefully done and its findings probably represent the situation throughout the country. It certainly suggests that something should be done to bring present-day organizations of elementary schools and the practices in administering these organizations more into accord than they now are with modern theories concerning the growth and the development of pupils. In the final chapter the author of the report suggests a type of organization and a plan for administration that he thinks would accomplish this desired result. The plan, of course, does not inevitably follow from the findings of the investigation, but it is worthy of careful consideration.

F. M. GARVER

UNIVERSITY OF PENNSYLVANIA

The reorganization of local government in Kansas.—The reorganization of local government is the subject of a rapidly increasing body of published materials. In the slim volume which is the subject of this review,¹ the author sketches some parts of the literature on the subject, summarizes certain economic arguments for the consolidation of counties, analyzes the results of a field study of the attitudes of certain residents of three counties in Kansas toward county consolidation, and discusses rather briefly the need for rural-school consolidation and the co-operative-school areas in Kansas.

If this volume makes any contribution to the subject, it is in chapter iii, "Socio-psychological Factors in County Unification." In gathering the data for this chapter, the author made a sincere effort through interviews with some hundreds of people in three counties in Kansas to ascertain attitudes toward the consolidation of the county governments. Unfortunately, he failed to follow the best available techniques, such as those of L. L. Thurstone and H. C. Beyle, and ended up not with any definite scale or measurement of attitudes but with a

¹ Harrison Leslie Euler, *County Unification in Kansas*. Teachers College Contributions to Education, No. 645. New York: Teachers College, Columbia University, 1935. Pp. 92. \$1.50.

tabulation of replies to a group of miscellaneous, overlapping, and partly ambiguous questions which are grouped in two tables, Tables VII and VIII, as replies opposing and favoring county consolidation.

The rest of the work is a rather inadequate summary of a part of the literature of the two subjects of county consolidation in general and rural-school consolidation. These are two distinct though related subjects, and the work lacks unity because it assumes that they are largely the same subject. In fact, the subject of school consolidation as here treated has little to do with county consolidation.

Instead of making his own investigations and verifications of many points discussed, the author has quoted without question a number of supposed authorities, including the writer of this review. The work is marred by numerous quotations such as "A shows," "B points out," and "C says." There are many obvious errors in statements of fact and a number of typographical errors. For example, an *exploratory* research conference on the reorganization of the areas and functions of local government held in 1932 is referred to throughout as an *explanatory* conference, and the editorship of the report is erroneously credited to the writer of this review instead of to Luther H. Gulick.

WILLIAM ANDERSON

UNIVERSITY OF MINNESOTA

Progress toward the betterment of child nutrition.—No other volume duplicates the field covered by Roberts' widely known textbook, which has just appeared in a much enlarged second edition.¹ The thorough revision was made necessary by rapid advances in the various fields which it covers. Not only teachers, child-welfare workers, and students in the field of child nutrition will wish to avail themselves of the wealth of material gathered into this volume, but parents also will find helpful non-technical discussions of their problems. The author points out that "for the great bulk of our population . . . the knowledge gained through years of costly experimentation is as good as non-existent, for it is not being utilized for their benefit. The present-day nutrition movement . . . aims to secure the more prompt and effective incorporation of results of nutrition research into the daily living of the great masses of our people" (pp. 2-3).

The author is particularly fitted for the writing of this textbook by her background of public-school and university teaching, her studies for the United States Children's Bureau, and her own contributions to the development of the child-health movement in America.

A reading of the chapters dealing with methods of judging nutrition and normal growth of children brings full realization of how far the movement has progressed beyond the early simple "weight diagnosis," which, although it accomplished an important service in the formative era of the movement, has had many severe critics and is now largely discredited as the criterion for judging nutrition. The chapters on possible physical and mental sequelae of under-nutrition are also arresting.

¹ Lydia J. Roberts, *Nutrition Work with Children*. Chicago: University of Chicago Press, 1935 (revised). Pp. xx+640. \$4.00.

Perhaps the finest contribution of the book is the description of the methods by which nutrition betterment is to be accomplished and the part which a well-planned school program may play. The discrimination, the forcefulness, and the sanity of this part of the book reflect the mature judgment and professional skill of a past master in the art of teaching children.

It was assumed by the author of the book that the reader would have some knowledge of the fundamentals of nutrition and that he would make use of the selected bibliography for supplementing the brief statement of what constitutes a normal diet, which was all that the scope of the book permitted to be given. The question might be raised, however, whether a person unfamiliar with the field might not possibly gain, from allusions in the book, an overconfidence in the present knowledge of nutritional problems, such as the control of dental caries in children.

Especially to be commended are the useful Table of Contents and the detailed Index of the book.

HELEN T. PARSONS

UNIVERSITY OF WISCONSIN

Instruction in reading.—The book which is the subject of this review¹ is a revision of an earlier book by the same title, in which the author outlines a more matured program of diagnostic and remedial instruction in reading. The book is, according to the author, a manual for the use of two groups of workers: (1) teachers, principals, and supervisors and (2) psychologists and other experts interested in reading. The book is highly technical and is not well suited for use by a person unskilled in educational and psychological measurements. In one convenient volume the expert in reading will find guidance, not only in the use of a series of group and individual diagnostic tests, but also in the use of a considerable body of diagnostic and remedial procedures and exercises. There are also many illuminating discussions of certain problems of reading instruction toward the solution of which the author has directed extensive research and given much thought. The author develops the theory that diagnostic and remedial instruction should begin with group measurements and proceed to the administration of more detailed tests as need for them is shown. Likewise, remedial instruction should begin with measures designed to give the pupil training in those more general abilities which are tested by the group tests and then proceed to more detailed remedial treatment as need for it arises. This point of view seems to be practical and to be calculated to avoid detailed diagnostic and remedial work where the need for it is not indicated.

The author of this volume is committed to the theory that the most serious causes of reading disability are those which might not have been acquired by the pupil had the right guidance been given at the right time. He also believes that a remedial method which begins with attack on wholes rather than a method which begins with parts and builds up to wholes is more in accord with sound

¹ Arthur I. Gats, *The Improvement of Reading: A Program of Diagnostic and Remedial Methods*. New York: Macmillan Co., 1935 (revised). Pp. xvi+668. \$2.50.

psychological principles. He feels that, on the whole, too much emphasis has been given to diagnosis based primarily on the theory that organic defects are the basis of most difficulties in reading; he has greater faith in the theory that most difficulties are due to faulty training rather than to organic difficulties. He places his major emphasis on the discovery of faulty techniques. In this point of view he differs, at least in relative emphasis, from other experts.

The plan of diagnosis and remedial instruction offered in this volume is most complete and comprehensive, but it is somewhat lacking in clarity of exposition. The author, in trying to write a book suitable for the use of both the unskilled teacher and the skilled case-worker, has not made clear exactly where the work of the unskilled teacher leaves off and the work of the skilled case-worker begins. Nor has he indicated how a school should organize for diagnostic and remedial work and what the function of the various persons concerned with instructional matters are. This fact leaves unanswered many practical questions which should be discussed before the principal or the supervisor could use the manual most effectively as a guide to a remedial program in reading.

The volume, however, is remarkable because it presents in printed form a most imposing amount of data, a clean-cut analysis of various fundamental abilities in reading, causes of disability, and discussions of various problems in teaching which are of great current interest. It exhibits an indefatigable devotion to the discovery of practical methods of procedure in reading instruction which shall be backed by research and therefore give us more confidence in their validity than those based, as heretofore, on theory alone.

All in all, *The Improvement of Reading* will take its place in classroom and laboratory as a thorough and comprehensive manual of diagnostic and remedial procedures in reading which will be of great practical use to persons engaged in diagnostic and remedial instruction and of interest to all those who wish to gain a greater insight into this important and fascinating field.

G. A. YOAKAM

UNIVERSITY OF PITTSBURGH

Reading organized around social-science and science topics.—In progressive schools it has been recognized for some time that reading is not a subject in itself but a tool to be used in opening to children a wide variety of experiences in other subjects and in life. It has been recognized, also, that the activities into which children enter through dramatic representation and creative construction offer untold opportunities for bringing to them a sense of the value of symbols, a happy use of symbols, and a desire to use symbols for their own purposes. Teachers, however, have not been clear on how to teach children to read and at the same time make reading an intrinsic part of the activity program. Smith has made this combination admirably in the Unit-Activity Reading Series.¹

¹ Nila Banton Smith, *The Unit-Activity Reading Series: Tom's Trip*, pp. 40, \$0.20; *At Home and Away*, pp. 144, \$0.56; *In City and Country*, pp. 176, \$0.60; *Round about You*, pp. 240, \$0.68; *Teachers' Guide for the First Year* (preliminary edition), pp. iv+514. Newark, New Jersey: Silver, Burdett & Co., 1935.

The *Teachers' Guide* states clearly the changing demands in elementary education: the demands for orienting children into the life about them, for providing growth through child activity, for supplying experience in group living, for allowing freedom of creative self-expression, for developing attitudes toward accelerating change, and for developing attitudes of tolerance and understanding. "Perhaps one of the most effective ways in which we can assist teachers to apply these new ideas," declares the author, "is by preparing materials which are designed in the image of our present-day ideals. . . . It is through the use of new materials that teachers may become informed in regard to the psychology and philosophy of the active school" (*Teachers' Guide for the First Year*, p. 7).

Three types of schools are mentioned: those engaged entirely in the activity program, those which are in a stage of transition, and those which are operating on the conventional basis. Although the materials for the readers are identical for all types of schools, the procedures are carefully and practically prepared to suit the differing needs. In no case are the large objectives lost sight of, and in no case are the difficulties minimized or ignored. Each type of school receives definite, specific, creative aid in how to help children to be efficient readers while it is at the same time making reading a living part of children's experiences whether these experiences are personal or vicarious.

The social-science topics having the highest frequency of use in courses of study recommended by the Curriculum Laboratory at Teachers College, Columbia University, are chosen for these readers. The science topics are selected from the program "mapped out in the Thirty-second (sic) Yearbook of the National Society for the Study of Education." The stories in the readers enhance and further the social-science or science activities, being concerned with letter-writing, transportation, home, city, pets, play, school, helpers, gardens, birds, food, cotton, Eskimos, frogs, turtles, and toads. In schools where these topics are not used or the particular activities are not engaged in, the teachers will welcome these books because of the simplicity, clarity, and definiteness of the teaching. The materials are so flexible that they can be used in a variety of ways, intelligent and creative drill instead of monotonous repetition being thus provided. The self-help features soon enable children to become independent in finding for themselves words that they do not know. Provisions are made for individual differences and for creative self-expression. Supplementary pamphlets give further information on topics found in the readers, with the use of the same vocabulary. Posters which contain the vocabulary of the preprimer for use before it is introduced, wall charts for use before the primer, word and phrase cards lend themselves to creative use on the children's part.

The vocabulary is small; only 240 words are used in the primer, 69 of which have occurred in the preprimer. The greatest number of new words found on any one page in either the primer or the first reader is only 3, the average number in the primer being 1.4 and in the first reader 1.5. Phrasing, punctuation, and indentation have been thoughtfully considered from the standpoint of avoiding unnecessary difficulties in beginning reading. The story-book attractiveness of the books allure children to use them willingly. The content has fine continuity

in the first three books, but *Round about You* seems to lack this quality. The Eskimo stories seem a bit too far away in spirit. Will not children gain a closer feeling for foreign children through an understanding of the Russian, the Bohemian, the German, the Italian, and the Norwegian children in their own schoolroom than they will gain through reading about the Eskimo?

The Unit-Activity Reading Series brings to the teacher of reading a real contribution by making reading an integral part of the entire activity program, by presenting simple concrete material for developing reading readiness and for introducing words and word parts, and by providing a *Teachers' Guide* which presents both philosophy and clear and simple method.

ELEANOR TROXELL

EARLY ELEMENTARY SUPERVISOR

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A new series of textbooks in arithmetic.—It is a long step from the arithmetic textbooks in common use at the close of the nineteenth century to the better textbooks of today. Great progress has been made in organizing subject matter along psychological rather than strictly logical lines; in eliminating useless topics and parts of topics and finding for their places materials of social worth; in developing practice exercises, diagnostic tests, and remedial materials that will insure more ready learning and better retention; in finding attractive and appropriate illustrations; and in connecting the lessons with the everyday uses of arithmetic in the lives of the pupils and their associates.

The authors of the books under review¹ state that there are two principal objectives of arithmetic-teaching, namely, the development of skill in the fundamental processes and in problem-solving and the development of appreciation of the function of number in life-activities. The books which they have written seem to be built to accomplish rather well both of these objectives and to illustrate repeatedly the types of progress enumerated in the preceding paragraph.

In recent years there has been much criticism of the usual arithmetic curriculum. It has been said that much of the material taught in the various grades, particularly in the lower grades, is too difficult for the pupils and that certain topics should be moved to grades higher than those in which they are usually found. *The New Curriculum Arithmetics* differ from *The New Triangle Arithmetics* in that they provide for a later treatment of several topics or phases of topics. For example, the multiplication and the division combinations through

¹ Leo J. Brueckner, C. J. Anderson, G. O. Banting, and Elda L. Merton, *The New Triangle Arithmetics*: Grade III, pp. vi+308; Grade IV, pp. vi+272; Grade V, pp. viii+280; Grade VI, pp. viii+280; Grade VII, pp. viii+280; Grade VIII, pp. viii+280. *The New Curriculum Arithmetics* (Triangle Series): Grade III, pp. viii+278; Grade IV, pp. viii+278; Grade V, pp. x+278; Grade VI, pp. x+278; Grade VII, pp. viii+280; Grade VIII, pp. viii+280. Philadelphia: John C. Winston Co., 1935 (revised). \$.60 each.

the nines are taught in Grade III in the Triangle series, while all these except the ones and twos are carried over to Grade IV in the Curriculum series. The books for Grades VII and VIII are identical in the two series.

It is obvious to one who examines critically the sets of practice examples in these arithmetics that care has been taken to distribute the practice systematically over the various elements involved in the processes. Slips occur here and there, as on page 148 of the Triangle book for Grade V where $\frac{9}{7}$ is omitted from a list of the more difficult addition facts and on page 8 of the Curriculum book for Grade IV where $\frac{5}{-2}$ and $\frac{5}{-3}$ are included in the more difficult subtraction facts while $\frac{14}{-7}$, $\frac{12}{-4}$, $\frac{12}{-6}$, $\frac{11}{-5}$, and $\frac{11}{-6}$ are omitted. On page 37 of the Triangle book for Grade IV one fact of a group is omitted, while each of two others occurs twice.

In the opinion of the reviewer, the zero combinations should be taught, not at the time the other combinations are given, but later when the time comes to use them in examples involving numbers of two or more digits. Seldom, if ever, in a person's affairs do the zero combinations occur separately. If a girl finds 5 eggs in one nest and none in another, she does not add 0 to 5 to determine the total. If a boy has 5 cents and buys an ice-cream cone, he does not subtract to discover that he has no money left. After developing zero combinations along with the others, the Triangle book for Grade III gives such strange subtraction examples as $\frac{38}{-0}$, $\frac{77}{-0}$, $\frac{24}{-0}$, and $\frac{47}{-0}$.

For the most part the authors seem to have done well in their efforts to use words that will be meaningful to the pupils. However, "cumulative" tests occur throughout the series; the word "exhibit" is in the third-grade book (Triangle series, p. 214); fifth-grade pupils find "construction" (Triangle series, p. 91); and "rectangular solid" is used but not explained on page 230 of the same book. The word "reciprocal" is introduced on page 201, used only once, and then dropped. The word "ratio" is defined on page 23 of the sixth-grade book in the Triangle series but is promptly dropped. Such words, new to pupils, should not be introduced unless an effort is to be made to have them learned.

In some places the development seems to be too rapid for effective learning, in the case of Roman numerals in Grade III, for example, and multiplication of fractions in Grade V. As to the latter, a fraction is multiplied by an integer, an integer multiplied by a fraction, a mixed number multiplied by an integer, and an integer multiplied by a mixed number—all in five pages. The development of division by a two-digit divisor is also rapid. The pupil soon reaches $63 \overline{)4285}$ where he is told to multiply 63 by 7 mentally and to compare 441 with 428, a task much too difficult for many pupils.

The seventh-grade pupil learns that "per cent means 'by the hundred' " (p. 71), but in Grade VI he has correctly learned that it means hundredths. The

eighth-grade pupil gains the impression that gasoline taxes are commonly one cent, two cents, or three cents a gallon (p. 190). The eighth-grade pupil also finds on page 81 a map showing standard-time belts in the United States which is not up to date and is, therefore, incorrect. On page 253, in learning square root, he finds, "From your multiplication tables you recall that $12 \times 12 = 144$," but the series teaches the tables only to 9×9 .

There are many other slips, omissions, or minor faults, but, on the whole, the virtues far outweigh the faults. The books have, in addition to the virtues already mentioned, a number of excellent illustrations (and a few poor ones), many well-worded and real problems, many well-placed review exercises, valuable aids in calculation, and much useful and interesting information. As arithmetics go, the Triangle series are good arithmetics.

R. L. MORTON

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Basic problems in teaching spelling.—During the past three or four decades considerable attention has been paid to problems relating to the psychology and the pedagogy of spelling. Nevertheless, there is little in either the theoretical or the experimental treatments to guide the classroom teachers in efficient and economical instruction. The author of a monograph¹ concerned with the implications of the situation makes certain hypothetical assumptions on the basis of what appears to her the most valid logic and psychology and formulates a plan for diagnostic and remedial procedure.

Discussion of the assumptions proceeds along bibliographical, theoretical, empirical, and experimental lines. Selected opinions from the literature on spelling are presented and analyzed. Of particular interest are the treatments of such disagreements in position as those of Horn and Tidyman on the teaching of rules. No attempt is made to summarize all pertinent writings. A discriminating extension of the bibliography might well have increased the value of the contribution. The discussion of marking the hard spots in teaching spelling, for example, includes no reference to the work of Tireman.

Analysis of the performance of several senior high school classes on spelling tests of different types and degrees of difficulty showed that, in general, the ability of the pupils was well above grade on tests comprising rare and difficult words. The question is legitimately raised: Which test findings should be used administratively?

A second vocabulary study analyzed some fifty-five thousand spellings, listing the percentage of misspellings for each word on the list (compiled especially for these high-school pupils) and comparing the frequency of use of words and lists according to the Thorndike *Word Book*. The author concludes that "class

¹ Alice E. Watson, *Experimental Studies in the Psychology and Pedagogy of Spelling*. Teachers College Contributions to Education, No. 638. New York: Teachers College, Columbia University, 1935. Pp. xii+144. \$1.50.

work in spelling practice should be largely eliminated as uneconomical of time and effort, at least in the higher schools" (p. 17). While cumulative evidence appears to indicate the desirability of individual lists for secondary-school pupils, the author's statement should, perhaps, be recast for the sake of scientific accuracy, since there exists the possibility that class work may be desirable in effecting better spelling habits, for example, through speeding up perception. There can be no quarrel with the author's corollary that pupils should master efficient techniques for self-teaching.

The studies in teaching method are, for the most part, disappointing when viewed in the light of accepted techniques for the scientific study of education. Group experiments depend for their validity on the control of the salient experimental factors involved. In the experiments at the Jefferson High School, Los Angeles (one of the schools used in the study), the author neglected such factors as intelligence, familiarity with spelling rules, sex, and teacher bias; she did not even equate her groups with respect to initial ability to learn spelling. One is forced to agree with her statement that "the findings . . . do not contribute to the solution of the problems respectively involved because the computations are applicable only to groups equated at least for initial-test scores" (p. 95). Since critical evaluations of studies in the field of education have repeatedly focused attention on the confusion resulting from experimental excursions employing inferior techniques, the justification for reporting this group of studies is not apparent.

A better experiment, not included in the Jefferson studies, lends some support to the Pearson "together" method of teaching homonyms.

The strongest feature of the monograph is the discussion of the basic assumptions. The plan for diagnostic and remedial procedure, though well worth attention, rests on hypotheses yet to be proved. The author is to be commended for her caution in tending to refrain from conclusions unjustified by her data.

LUTHER C. GILBERT

UNIVERSITY OF CALIFORNIA

Games for every occasion.—The increased emphasis on all forms of recreation during the past few years has aroused a great deal of interest in books and magazine articles about recreational activities. A new book¹ on games and contests surpasses all its predecessors in completeness and convenience for school use. It describes enough activities to permit selections that will fit nearly any occasion or any age group. It should prove of much value to all persons engaged in the organization and leadership of play, including teachers of physical education, playground leaders, camp counselors, directors of church recreation, and club leaders.

¹ Bernard S. Mason and Elmer D. Mitchell, *Active Games and Contests*. New York: A. S. Barnes & Co., Inc., 1935. Pp. viii+600. \$3.00.

The book is organized in five parts with a total of twenty-eight chapters. The different parts describe (1) contests between individuals; (2) contests between groups; (3) goal, tag, and combat games; (4) team games; and (5) water, winter, and mounted activities. These groups include all types of active play except rhythmic activities, imitative or dramatic play, and social games frequently used at parties. In each part the games and contests are classified in a general way according to the age groups for which the activities are suitable: early elementary school, late elementary school, junior high school, senior high school, college, and adult. Many of the activities are indicated as being suitable for use by two or more of these groups. The place, such as the gymnasium, playground, club, or camp, where the event may be used successfully is stated in the description of each activity.

The descriptions are written with simplicity and clarity, and in many cases illustrations are used effectively to supplement the descriptions. Even persons who have had little experience in playing games should be able to follow the directions without difficulty. The arrangement of the activities in progressive order and the scheme for systematic presentation are helpful in the use of the book, especially the sections on team games.

Many games of simple organization which give practice and drill on the fundamental skills of highly specialized games, such as baseball, tennis, soccer, football, hockey, and basketball, are adequately described; and these preparatory games, of course, are highly valuable in learning more complex play activities. The emphasis in the discussion of the highly organized games has been on an understanding and appreciation of the objectives, rules, and methods. The technical aspects of skills and team play and strategy, such as are usually found in books on the coaching of major sports, have been wisely omitted from this book.

JACKSON R. SHARMAN

UNIVERSITY OF MICHIGAN

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The Elementary School Journal

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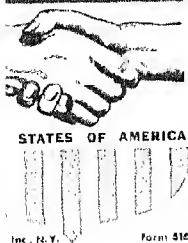
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Educational News and Editorial Comment

THE CHANGING NEEDS OF VOCATIONAL EDUCATION

The impact of technology on our industrial system is insistently forcing a reconsideration of the problems of vocational education. The rapidly shifting vocational pattern is creating a demand for greater adjustability on the part of workers. It is no longer enough to develop in youth the mastery of one or two skills because changes in machines and processes may, almost overnight, render these skills of little value. Vocational education should be sufficiently broad to enable the worker to shift more or less readily from one type of job to another within the industry or even within some other industry. Not only that, industry today is making increased demands on the worker's general intelligence, his power of attention, and his social adjustability. Any realistic program of vocational education must take into consideration these changing demands of the worker's world.

School superintendents and others who have the responsibility of directing programs of vocational education will be interested in the following statement by George C. Mann, chief of the Division of Adult and Continuation Education, State Department of Educa-

tion of California. Mr. Mann's statement is quoted from the *California Journal of Secondary Education*.

Vocational education in the Emergency Education Program was limited in the authorization to classes for unemployed adults who were eligible for any form of state or federal work relief and who were in need of vocational training or adjustment to make them employable. While the limited authorization prevented the extension of the program to all those who might benefit from further vocational training, it did have the advantage of providing an opportunity to study deficiencies in the vocational preparation of a great army of the unemployed, and the changing needs of vocational education as revealed by the training and placement records of emergency education classes. These needs may be briefly summarized as follows:

Highly specialized training, which has been common in industry and in many schools, has had the effect of leaving great numbers of people without the abilities to bear their own economic weight when specialized jobs have been discontinued or changed through new methods of production. In preparing workers for these specialized jobs, a total competency of the vocation has not been considered. This fact was emphasized in the reports of a series of surveys made in connection with the Emergency Education Program last year. One of these reports on welding shops revealed that a large percentage of welders are not fully skilled in the trade, although the labor field for welders is generally overcrowded. At the time this survey was carried on, the steel work was being started on the San Francisco-Oakland Bay bridge. When examinations were conducted for applicants for jobs as welders on the bridge, only 35 out of a total of 150 were able to pass the test. They had perfected themselves only in the type of work in which their particular shop specialized. Those contacted in the survey declared that they favored more training courses which would give the men now working at this trade not only a knowledge of the various types of welding through actual shop practice but an understanding of the theory behind the fusion of various metals, the ability to read blueprints, and a knowledge of other subjects which might give a more complete understanding of all phases of welding.

In general, broader fields of training which might have included preparation for allied fields in which the worker was engaged, have not only not been encouraged, but frequently have been frowned upon, with the result that thousands of unemployed adults have entered the emergency classes with the request that they be given training which would enable them to meet the changes in their former occupations or to prepare them for employment in new fields in which they could use their previous training to the best advantage. . . .

Thousands of jobs have not been recognized by those who have concerned themselves with vocational education. This fact was strongly emphasized in the series of surveys which have been mentioned. It was possible to draw a number of important conclusions from these surveys. Vocational education

during the war period concerned itself mainly with education in production occupations. This emphasis was a natural result of the particular emergency of the time. Service occupations were overlooked almost entirely. In the surveys it was found that the training needs in service fields, which employ more than half of all people engaged in wage-earning occupations, are not being met by any agency. Calls for trained people in such relatively new fields as air-conditioning revealed that little training had been offered for preparation in these new occupational areas.

In many cases vocational education and appreciational education have been confused. There is a definite need for a clear understanding of what constitutes real vocational preparation. Many vocational courses in our secondary schools have been interesting and valuable as an activity, but must be justified as a general appreciational course rather than definite preparation for employment. We cannot hope that many of these courses can function in the preparation of students for definite occupational efficiency because of the improbability that the students of high-school age who are enrolled can find employment and make use of their training while it is still pertinent to the occupational field to which the training relates. "During the last two years, governmental forces have accelerated the tendency which has been evident for a number of years in industry and society in continuing to push upward the age at which minors are able to find profitable employment" (Continuation Education Bulletin, 1935, State Department of Education).

It is clear that the general philosophy of vocational education expressed briefly in the statement that all training must be tied up closely with industry has, in many cases, been followed so literally that the education has been for the benefit of industry rather than toward the increased occupational efficiency of the worker. Foremanship training has been given in order that production might be increased. Training has been given in highly specialized fields for the same reason. It is true, of course, that the individual received benefits, both in broadened training in his field and in a greater security, because he became more valuable to his employer, but, when he ceases to be a foreman in his particular industry, and a specialized job no longer exists, he finds his training of little help in adjusting himself to new economic and employment conditions.

It has become apparent that there is a need for an enriched socio-civic training, designed to bring about a better social intelligence and a grasp of human knowledge that will give to the worker an understanding and overview of the economic, social, and political problems of modern society, as those problems affect his own status.

In the Emergency Education Program, traditions have been ignored so that teachers, selected because they are masters in their own field, have brought in a broader education to offset the futility of narrow specialization. The futility of this narrow specialization is clearly seen when we consider that there are more than twenty-five thousand occupational designations. Absence of ade-

quate and accurate information concerning many of these occupations complicates the problem. In order to meet the changing needs most successfully, the program should give more attention to diagnosing individual fitness for occupations.

In reviewing these changing needs of vocational education, as revealed in the outcomes of the Emergency Education Program as stated, it is clear that the present great need is a wider provision for vocational education for the great army of unemployed, and employed adults as well. To get the training they need at the time they need it, is essentially a problem of adult education. It is the adult of the day who must face the real problem of preparation for employment. These needs must be met if we are to hope for the economic betterment and the restored morale of a great body of our citizens.

A CITY YOUTH SURVEY

A recent issue of *Occupations* carries the following summary statement of the findings of the youth survey of New York City.

With the aid of WPA workers the Research Bureau of the Welfare Council of New York City has been studying a large sample or cross-section of the youth population of the metropolis. Ellen N. Matthews, director of the Youth Survey, gives a preliminary report of the findings in *Better Times*. . . . It was found that of all the young people between sixteen and twenty-five years of age, so far covered in the study, 20 per cent were in school or college, 36 per cent were at work, and 43 per cent were neither in school nor at work. Leaving out of account those unable to work or not desirous of entering the labor market, about one-third of the total number were "unemployed"—that is, able and anxious to work, but without jobs. Assuming the sample to be representative of the youth population of the city as a whole, and basing estimates on the 1930 population figures, the data indicate that a total of close to 390,000 young people in the five boroughs are unemployed and of these about 140,000 have never had a job.

According to these data, girls had been somewhat more successful than boys in getting employment, and white young persons than negroes. Among the unemployed group not quite half—though well over half of the girls—were under twenty years of age. Almost three-fourths of the unemployed who had never worked were in their teens, while two-thirds of those with work experience were in their twenties. Most of this work experience was intermittent and for short periods. The majority had worked in clerical or related occupations chiefly as general clerks, messengers, and office boys and girls; some few as stenographers, typists, and telephone operators; others as semi-skilled factory operatives; and still others in such domestic occupations as those of porter, waitress, or bus boy. Only 10 per cent had had any experience in occupations classified by the Census as skilled.

In the main the educational achievement of the unemployed youth was found

to be somewhat inferior to that of the employed. This educational status ranged from comparative illiteracy to college graduation and even one or more years of graduate study. One-third of the total number of unemployed had completed high school. What by far the greater number of the unemployed asked for was work, not further schooling. About two-fifths of the unemployed in Manhattan and the Bronx, and about one-third of those in Brooklyn, expressed a desire for additional schooling; the others said that they did not want to attend school any more. The young people who said they wanted further education were interested chiefly in vocational work. Only about 10 per cent of those wanting schooling cared to continue in regular elementary or high schools or go to college. For most of these young people, therefore, graduation from high school, and for many even the completion of the elementary-school course, apparently marks the limits of their interest in schooling. As Miss Matthews says: "The use of scholarships to enable this group to return to a regular school or college course would seem to be of limited application. The situation . . . seems rather to demand the development of educational programs especially adapted to their needs outside the regular curriculum. Possibly some of this group might be best served by training developed in conjunction with work projects, so that those who have already achieved some vocational skills could, through practice, be enabled to retain and improve them, and those who have yet had no opportunity to acquire either skills or work habits could be made more fit for a regular job when it comes."

Miss Matthews concludes her article by remarking on the variations found in the characteristics of the young unemployed group—the great number and variety of special needs and problems. The facts point to the necessity of individualized treatment in many cases. Counseling service should be available to all. The reports of the investigators show, on the part of these young people, an eagerness to talk over their problems, an almost universal ignorance of such facilities for obtaining advice as now exist, and an encouraging desire for counsel and guidance.

PRINCIPLES AND PROCEDURES IN THE PREPARATION OF TEACHERS' SALARY SCHEDULES

During the next few years the matter of teachers' salaries will no doubt be given a great deal of consideration. Already there is evidence of a general tendency to restore and to adjust salaries. Boards of education everywhere are faced with the necessity of adhering to old schedules or of adopting new ones better suited to changed conditions. When establishing policies with respect to teachers' salaries, superintendents and school boards will need guidance in thinking through the problems confronting them. It was with this thought in mind that the Research Division of the National Education Asso-

ciation prepared two bulletins on *The Preparation of Teachers' Salary Schedules* (Research Bulletin of the National Education Association, Volume XIV, Numbers 1 and 2). In the first bulletin two major topics are discussed: (1) administrative procedures in preparing and adopting the new salary schedule and (2) the gathering and the presenting of the facts on salaries. The second bulletin is devoted to a consideration of policy in drafting the salary schedule. It discusses in some detail such matters as basic classification of salaries, maximum salaries, increments, requirements for continued professional training, sex as a basis of variation in salary, teaching efficiency and the salary schedule, differentials for special teaching services, and salaries of principals and other officers. These bulletins should prove extremely helpful to superintendents and school-board members in evaluating existing schedules and in formulating new schedules.

THE EDUCATION BILL IN ENGLAND

For many years education in England has been in the process of reorganization. The Hadow report on the education of adolescents, which was published some years ago, recommended that elementary education proper end at the age of eleven, that the school-leaving age be raised to fifteen, and that there be established a system of compulsory junior schools enrolling pupils from the age of eleven to fifteen. The recommendations of the report were approved by all parties, but the government has experienced difficulties in enacting a law to carry the recommendations into effect. The most serious obstacle has been the attitude of the voluntary (denominational and private) schools. These schools, the reader will recall, do not receive grants from the government to construct or repair school buildings. The voluntary-school interests have insisted that the voluntary schools do not have the financial resources to remodel their physical plants in such a way as to carry into effect the principles of the Hadow Plan, and they have been able to defeat any bill that does not provide grants for the enlargement or improvement of voluntary-school buildings. A second difficulty has been the matter of raising the school-leaving age. To raise the compulsory age to fifteen would work hardship on parents in the lower income groups. A proposal, which has not met with favor, is that the government subsidize parents who have low incomes and who also have children

between fourteen and fifteen years of age in school. Moreover, the raising of the age of compulsory school attendance has raised a number of problems with respect to employment of young persons. Although no law has been enacted making possible a complete realization of the provisions of the Hadow Plan, local authorities have, to some extent, been able to carry it out. The existing law enables local authorities, under certain circumstances, to require attendance to the age of fifteen, and thirteen authorities have taken advantage of the law.

The present government has introduced a bill making it mandatory on local authorities to require school attendance until the age of fifteen. Under certain circumstances, however, children between fourteen and fifteen may be exempted from school attendance. The major provisions of the exemption clauses are summarized as follows in a recent issue of the *London Times Educational Supplement*.

If a local education authority is satisfied, after consultation with the local committee for juvenile employment, that the employment will be beneficial to the child, the authority must grant an employment certificate to the intended employer in respect of that child. . . .

The local education authority, in deciding whether any employment is beneficial, must have regard to the prospective as well as to the immediate benefit of the child, and in particular must take into account: (1) the nature of the employment, the wages to be paid, and the hours of work; (2) the opportunities to be afforded to the child for further education; (3) the time available to the child for recreation.

The authority may require an undertaking from an employer in connection with 1, 2, and 3 above, as a condition precedent to the grant of an employment certificate, and the employer will be liable to a fine if he fails to carry out any such undertaking which is specified in the certificate. . . .

An authority may cancel an employment certificate if any undertaking given by an employer is not observed by him or if the child has failed to make use of opportunities for further education afforded to him in pursuance of such an undertaking. . . .

By Clause 5 of the bill exemption from school attendance between fourteen and fifteen years of age may be given to enable the child to give assistance in the home if the authority are satisfied that by reason of the home circumstances exceptional hardship would otherwise be caused.

The bill also makes possible financial aid to the voluntary schools.

Clause 7 of the bill enables authorities, for the benefit of senior children (i.e., children over eleven years of age), as a temporary measure to enter into agreements with the managers of voluntary schools whereby they may give financial

aid towards the enlargement and improvement of existing voluntary schools, including the provision of additional or substituted land for sites. Any work thus aided must, to the authorities' satisfaction, be necessitated by the raising of the age, or effect improvements in the organization of education in the area or provide accommodation required for practical or advanced instruction—all in relation to senior children.

Aid may also be given by authorities to persons proposing to provide a new voluntary school for senior children. In addition to the requirements set out in the preceding clause, no agreement may be entered into with respect to the provision of a new voluntary school unless the Board are satisfied that the needs of the district can be more conveniently met by the proposed school than by the enlargement or improvement of an existing voluntary school of the same denomination, or that the proposed new school will be required for children who before the age of eleven attended a junior school of the same denomination.

Grant by a local education authority to voluntary schools must not be less than one-half nor more than three-quarters of the cost of the proposed building or reconstruction.

At present the local education authorities have some control over the voluntary schools. Teachers in these schools are appointed by the managers of the schools subject to the consent of the local education authority, and consent cannot be withheld except on educational grounds. Teachers in voluntary schools cannot be dismissed without the consent of the local authority unless dismissal is in some way connected with the giving of religious instruction. Under the new bill the local authorities are given increased control over the voluntary schools.

When a grant is made by a local education authority to a voluntary school—

a) All the teachers must be in the employment and under the control of the authority except that the "reserved teachers" will give the religious instruction in the school under the control of the managers.

b) The authority will appoint all the teachers in the school, but as regards "reserved teachers" appointments will be made only if the managers are satisfied as to their fitness and competence to give the required denominational religious instruction.

c) The authority also will have power to dismiss all teachers, but, if the managers are of opinion that a "reserved teacher" has failed to give the required denominational religious instruction efficiently, they may request the authority to remove that teacher from employment as a "reserved teacher."

If any dispute arises between a local education authority and the managers with regard to the appointment or dismissal of a "reserved teacher," the Board may appoint an impartial person to determine the dispute—the authority and

the bishop of the diocese (or other person or body nominated by the Board) each appointing an assessor if they desire to do so.

If a voluntary school which has received financial aid from an authority repays the grant in full, the agreement (including the appointment and control of teachers by the authority) shall cease.

The exemption provisions of the bill are being subjected to widespread criticism. A recent issue of the *Times Educational Supplement* carries the following account of a demonstration against the bill.

A public demonstration, held under the auspices of five national organizations which, it was claimed, represent nearly 1,500,000 men and women engaged in education, was held at the Central Hall, Westminster, on Saturday to protest against exemptions in the Education Bill in connection with the raising of the school-leaving age and to demand maintenance allowances as an alternative policy.

The five organizations are the Association of Education Committees, the National Union of Teachers, the Educational Institute of Scotland, the School Age Council, and the Workers' Educational Association.

The following resolution was submitted:

"This demonstration affirms its conviction that the Education Bill will be ineffective for its main purpose unless it provides for the raising of the school-leaving age, without exemptions, to fifteen years, and further that due provision should be made for the payment of maintenance allowances recognized for grant purposes to enable necessitous children to remain at school to that higher age."

Sir Walter Citrine, general secretary of the Trade Union Congress, who presided, said that the demonstration had nothing to do with creed, class, politics, or party. It had a real desire to be helpful and constructive. Education ought not to be brought into the arena of party politics at all.

The exemption system, he said, would render the bill farcical, and in the absence of a maintenance grant it would be impossible for children to be kept at school for the additional year. He did not see why there should be any hesitation about facing up to the financial liabilities of maintenance grants.

Mr. Lees-Smith, M.P., said it was clear that the estimates put forward by education administrators of exemptions amounting to 90 per cent were likely to be nearer the truth than that of the government of 50 per cent. The bill was an anticlimax, and a great educational mistake was about to be committed.

Mr. F. Mander, general secretary of the National Union of Teachers, said that local authorities and teachers were united in their conviction that, as at present framed, the Education Bill now before Parliament would not work. It did not settle the religious question; it merely handed the difficulties over to the local authorities. It placed fifteen on the statute-book as the school-leaving age, but it did not compel the children to stay. Instead, it permitted them to

leave for reasons which no one could regard as educational. The view of many, he went on, was that the vast majority of children would leave before the age of fifteen.

"I venture to appeal to the government, during its further stages, to transform this bill into an educational rather than an employment measure, by removing not only the exemption clauses, but, in the case of children of needy parents, the poverty bar to further education between fourteen and fifteen. By so doing, the government would be true not only to its own published philosophy, but would deserve well of the present generation and posterity."

TWO USEFUL BIBLIOGRAPHIES

For some time the United States Office of Education has been publishing a bibliography series under the general title of "Good References." The most recent number in the series bears the title *Good References on Elementary Education: Classification, Grading, Promotion*. It may be secured free from the Office of Education.

In 1933 the United States Office of Education published an extensive bibliography on the education of teachers. A recent pamphlet of the Office (Pamphlet Number 66), entitled *Education of Teachers: Selected Bibliography*, brings up to date the references in the earlier bulletin.

THE ARTICULATION OF ELEMENTARY AND JUNIOR HIGH SCHOOLS IN BALTIMORE

The *Annual Report of the Board of School Commissioners of Baltimore City, 1935*, carries the following description of a program designed to bring about a closer articulation of elementary and junior high schools.

In order to have a smoothly functioning school system, it is necessary for each division to be aware of the subject matter and standards of all the others, but particularly of that unit which immediately precedes or follows it. If the articulation between the elementary and the junior high schools is insufficient, the teachers of the junior high school may expect too much of the elementary-school children who come to them; the elementary teachers may place an undue amount of emphasis on some phases of the work, and not enough on others; various inconsistencies may develop in the methods of procedures which the pupils are taught to use; and other difficulties arise to impede the work of the higher schools. Therefore, in order to reduce existing inequities and to prevent further misunderstandings, a study of the articulation of elementary and junior high schools was initiated early in the year. A joint committee of four elementary supervisors and four junior high supervisors was selected to carry out the program. The main steps in the work of this committee were as follows:

1. The junior high supervisors of English, history, geography, and mathematics conferred with representative seventh-grade teachers in their respective departments. In certain instances, a questionnaire to all seventh-grade teachers took the place of this conference.

2. The elementary supervisors and the junior high supervisor of each of the four departments mentioned above discussed the suggestions culled from the seventh-grade teachers.

3. Elementary courses of study in English, history, geography, and mathematics were distributed to all junior high schools; and junior high school courses of study in these subjects to all elementary schools. In this way, teachers unfamiliar with the work of the grades preceding and following the ones in which they were working were enabled to overcome this deficiency, and hence a better articulation of their instruction with that of other grades was made possible.

4. Departmental meetings were held by the junior high school supervisors to which the elementary supervisors in charge of the various subjects to be discussed were invited and at which the viewpoint of the sixth-grade teachers was set forth. The elementary supervisors also discussed briefly the aims, subject matter, and general methods of the elementary courses of study, in order to clarify any ambiguity that may have resulted from the study made of this material.

5. The junior high supervisors met with the principals and supervisors of the elementary schools; and the elementary-school supervisors met with the principals and supervisors of the junior high schools. At each meeting the supervisors were given an opportunity to discuss with the administrative groups the problems that had arisen, the work that had been done, and plans for the future.

As a result of the committee's efforts, the elementary supervisors were able to issue specific instructions to the teachers of intermediate grades on those points which needed emphasis according to the information brought to light by the articulation program, namely: uniformity of form in mathematics and constructive English; the development of outlining skills; independence in attacking new and difficult words; knowledge of the effective use of reference books; skill in the use of library equipment; independence in the use of the dictionary; knowledge of the factors which facilitate study; and important basal concepts in geography and history. Thus the work of the articulation committee will have far-reaching value in the lives of thousands of children.

MOTIVATING JUNIOR HIGH SCHOOL MATHEMATICS

In the *Seattle Educational Bulletin* Claude F. Turner, of James Monroe Junior High School, comments as follows on a survey of popular magazines made by eighth-grade pupils in his school:

The following brief analysis was made with a twofold purpose in view: first, to awaken pupil interest in the study of generally useful materials of algebra and geometry as found in the VIII A general mathematics course; second, to

determine the extent of mathematical knowledges and skills necessary for intelligent interpretation of information found in magazines read by them. To each VIII A pupil was submitted a list of ten magazines available in our library, and he was asked to choose the three he most enjoyed. The 127 boys and girls participating ranked these magazines in the following order of popularity: *Popular Science* (this magazine is used in the general-science course), *Popular Mechanics*, *Boys' Life*, *American Girl*, *Popular Aviation*, *St. Nicholas*, *Radio News*, *Home Geographic Monthly*, *Nature Magazine*, and *Junior Red Cross Journal*. The magazines were then assigned to classes for study of mathematical content.

Briefly, this survey led to the following observations. The students needed to be able to read and interpret whole numbers, fractions, and percentage references. They were faced with comparisons of many types, with units of measure, and with constant reference to money values. In five of the magazines, including those ranking first and second in popularity, there was a necessity for knowledge of simple algebraic terms and formulas. In reading construction plans, the geometry of shape, position, angle, and degree was needed. Also, the students had to be able to comprehend simple tables, graphs, charts, and diagrams fully to understand their reading.

Another phase that warrants attention is the use of abbreviations of a semi-technical nature in connection with numbers. R.p.m., h.p., m.p.h., kw-h., and abbreviations of like nature occur frequently in the content of these popular magazines.

In conclusion, it was noted that comprehension of mathematical terms, not skill in manipulation, is the present reading need of VIII A pupils in our school. Furthermore, this need will be a continuing one and, in all probability, will constitute the major portion of the generally useful materials of mathematics retained by the students after their formal school days are over. To many of those taking part in the study, the amount of mathematical information needed in their reading was a revelation and served partially to answer that ever-recurring, "Why must I study algebra and geometry in the VIII A? I'll never use them."

CONFERENCE OF ADMINISTRATIVE OFFICERS OF PUBLIC AND PRIVATE SCHOOLS

During the week of July 20-24, 1936, a conference of administrative officers of public and private schools will be held by the Department of Education of the University of Chicago in the Club Room of Judson Court, College Residence Halls for Men, for the discussion of important problems in school organization, administration, and supervision. The morning programs will consist of lectures by members of the Department of Education and visiting instructors and

the afternoon programs of separate round-table discussions for superintendents and principals. Programs of the conference will be mailed to anyone applying to Professor W. C. Reavis, Department of Education, University of Chicago.

Room and board will be provided, to the extent of the available capacity, in Judson Court for the week, Monday to Friday, for sixteen dollars. Reservations may be made through William J. Mather, Bursar of the University of Chicago.

The conference is open without fee to students registered in the summer quarter and to administrative officers of public and private schools who desire to attend. The general theme of the institute is "Innovations in Educational Administration." The complete program follows.

Monday, July 20

DEPARTURES IN THE EDUCATION OF DEVIATE CHILDREN

"The Truant Type," Edward H. Stullken, Principal, Montefiore Special School, Chicago, Illinois

"Retarded Readers," William S. Gray, Professor of Education; Executive Secretary, Committee on the Preparation of Teachers, University of Chicago

"Rapid Learners," Guy T. Buswell, Professor of Educational Psychology, University of Chicago

Organization of round-table conferences for the afternoon sessions. Separate conferences will be conducted each afternoon for superintendents and principals.

Tuesday, July 21

IMPROVEMENTS IN BUSINESS ADMINISTRATION

"Restoration of Obsolete Buildings," Thomas J. Higgins, Assistant Director, Research and Building Survey, Chicago Public Schools

"Selection, Training, and Supervision of Custodians," George F. Womrath, Business Superintendent of Schools, Minneapolis, Minnesota

"Management of Equipment and Supplies," Rufus A. Putnam, Business Manager of Schools, Evansville, Indiana

Wednesday, July 22

IMPROVEMENTS IN PUPIL PROGRESS FROM THE APPLICATION OF CONTRIBUTIONS TO EDUCATIONAL SCIENCE

"Education as Cultivation of the Higher Mental Processes," Charles H. Judd, Professor of Education; Head of the Department of Education, University of Chicago

"Better Personality Development," George D. Stoddard, Director, Iowa Child Welfare Research Station, University of Iowa

"Some Principles of Mental Growth," Frank N. Freeman, Professor of Educational Psychology, University of Chicago

Thursday, July 23

PROGRESS IN SCHOOL AND COMMUNITY REORGANIZATION

"County-School Consolidation," Clarence G. Cooper, Superintendent of Baltimore County Schools, Towson, Maryland

"Community Health Program," Henry J. Otto, Director of Education, W. K. Kellogg Foundation, Battle Creek, Michigan

"State Planning of School Services," Fred Engelhardt, Professor of Educational Administration, University of Minnesota

Friday, July 24

CARRYING FORWARD CURRICULUM IMPROVEMENT

"In City School Systems," Nelson B. Henry, Associate Professor of Education, University of Chicago

"On a County Basis," Clarence G. Cooper, Superintendent of Baltimore County Schools, Towson, Maryland

"On a State-wide Basis," Hollis L. Caswell, Professor of Education; Associate Director, Division of Surveys and Field Studies, George Peabody College for Teachers

WHO'S WHO IN THIS ISSUE

J. T. WORLTON, assistant superintendent of schools, Salt Lake City, Utah. ANNIE M. CHERRY and ANNE V. HOLDFORD, graduate students at Teachers College, Columbia University. CARTER ALEXANDER, library professor at Teachers College, Columbia University. GERTRUDE WHIPPLE, assistant supervisor in the Elementary Curriculum Section of the Los Angeles City Schools. EVERETT B. SACKETT, associate in research at Lincoln School of Teachers College, Columbia University. JAMES F. ABEL, chief of the Division of Comparative Education, United States Office of Education.

INDIVIDUALIZING INSTRUCTION IN READING

J. T. WORLTON

Public Schools, Salt Lake City, Utah

The question of how to improve the methods and materials of instruction in reading is a challenge which is receiving widespread attention in experimental schools and in current professional literature. The complexity of the problem increases with the increased functional aspects of reading that characterize the program of the modern progressive school. This article presents the merits of a classroom organization and a technique of teaching reading which have been found, under experimental conditions in the Salt Lake City schools, to be an improvement over conventional procedures.

THE PROBLEM OF METHOD

The problem of providing facilities and developing techniques of instruction that will guarantee the successful pursuit of reading objectives is of active interest to teachers and school officials who are conscious of the difficulties involved. One of the greatest of these difficulties is the wide spread in the ability and in the interests of pupils in the same grade and class. How a sixth-grade teacher with forty pupils can manage to keep each child working with materials suited to his needs and interests is a problem which has not yet been satisfactorily solved. The fact that the reading abilities of these children probably vary from the low-fourth-grade to the eighth-grade level is not always recognized. Classes with a smaller spread in reading ability are the exception rather than the rule.

The extent of the range in reading ability among pupils of typical classes is indicated in Table I. This table lists the results from the Gates Silent Reading Tests, Form 1, given on October 12, 1934, to six high sections in five different schools. The scores reported are averages of the grade scores made on Type C of the test. The table shows that the reading-grade scores of third-grade pupils in the most advanced section range from that normal for second-grade pupils to

that normal for sixth-grade pupils, with an average reading grade of 4.0. It will be observed that all these classes show wide ranges in the pupils' ability to read. Since none of the weakest pupils were in these sections, it is apparent that among unselected pupils of typical classes the range in reading ability would be even greater.

TABLE I
GRADE SCORES MADE BY PUPILS IN HIGH SECTIONS OF EXPERIMENTAL
GRADES ON INITIAL TEST ON TYPE C OF THE GATES
SILENT READING TESTS, FORM 1

READING GRADE ON TEST	NUMBER OF PUPILS					
	Grade III School A	Grade IV School B	Grade V School C	Grade VI School D	Grade VII School D	Grade VII School E
XII B.....						
XII A.....				1		
XI B.....				1		1
XI A.....		2			7	2
X B.....						2
X A.....		1			4	3
IX B.....			2	4		3
IX A.....		1	2	1	6	4
VIII B.....			1	2		3
VIII A.....		7	3	7	7	2
VII B.....						
VII A.....		6	6	8	1	1
VI B.....						
VI A.....	1	5	10	4	2	1
V B.....						
V A.....	5	5	3	2		
IV B.....						
IV A.....	7	3	3	1		1
III B.....	3					
III A.....	5					
II B.....	5					
Total.....	26	30	30	31	27	23
Average reading grade.....	4.0	7.1	6.8	7.9	9.4	9.3

It is obvious, then, that the traditional method of conducting the reading lesson fails to meet the heterogeneity of needs presented by members of a typical class. When all pupils receive the same instruction, use the same book, and pursue the same reading activities, pupils having a reading ability one or more years below the reading level of the book used find the vocabulary and the reading content so difficult that they soon become discouraged and lose interest. If

they pursue their work under the coercive urge of the teacher, many negative habits and attitudes are likely to develop. In any event, desirable learning outcomes are not pursued economically. The traditional method is equally a handicap for members of the class who have a reading ability one or more years above that of the book being used. They lose interest in reading; they become bored with the proceedings and seek diversion in other activities, which are likely to be antisocial in character.

This problem of meeting the individual needs of pupils in reading has been given intensive study by Salt Lake City teachers during the past three years. As a result of these efforts, reading techniques have been developed which are designed to meet the problem of individual differences. These procedures were tried out in six experimental centers during the school year 1934-35.

THE EXPERIMENTAL READING TECHNIQUES

The essential methods of the program are incorporated in the procedures which the teacher uses in applying the techniques in a typical classroom situation. These basic steps are not formalized or routinized. They represent goals to be accomplished and suggest procedures for reaching the goals set. The creative powers of the teacher are challenged to vary and improve the techniques suggested.

1. The teacher determines the minimum core essentials in objectives and accomplishments and plans an enriched program for each grade.
2. The teacher determines, through the use of reading tests and other diagnostic procedures, the general reading ability, the specific reading difficulties, the interests, and the tastes of the individual members of the class.
3. The teacher, in a school having two or more classes in the same grade, classifies pupils into sections as nearly homogeneous with reference to reading needs as possible. (In the experimental centers the basis of classification was success in academic subjects in general. It was found to be impracticable to base the classification on reading ability alone.)
4. The teacher classifies pupils within each section into smaller groups as needs may require.

5. The teacher provides a rich variety of carefully organized reading materials. (In addition to the basic readers, a copy of which should be supplied to each child, fifteen or more sets of readers, with from three to five copies each, should be available in the reading room. A miscellaneous set of forty or more single titles would be a desirable addition.)

6. The teacher organizes teaching materials around large content units.

7. The teacher classifies reading materials for each unit with respect to the degree of difficulty or the grade level of the unit.

8. The teacher provides regular and frequent opportunities for the pupils to practice all important reading habits and skills. (A daily period of from forty to forty-five minutes should be devoted to reading, exclusive of the library period. Two or three full periods a week in the library are desirable.)

9. The teacher tests the progress of individual pupils from time to time by means of comprehension tests, book reports, oral-reading exercises, etc., and gives individual guidance and encouragement on the basis of these diagnostic results. (Introductory and self-checking exercises are provided for the pupil for each selection that he studies. At the conclusion of the unit the pupil takes the teacher's examination on the minimum essentials of the unit.)

UNIT PROCEDURE

The teaching procedure in developing a reading unit is comparable to that employed in the social studies and other content subjects. The following steps illustrate the techniques used in the experimental centers.

1. *Motivation.*—The teacher's first aim is so to present the subject content of the unit as to win hearty approval and adoption by the pupils. This activity is conducted with the entire class and may take a full period or more.

2. *Defining specific objectives.*—This activity involves all members of the class. Its purpose is to orient pupils with reference to the reading objectives to be attained. By means of class discussion under the guidance of the teacher, these purposes are clearly defined and illustrated.

In actual classroom practice Steps 1 and 2 are often developed concurrently.

3. *Planning the study activities.*—After the nature of the content of the unit and the reading purpose to be served have been determined, the next important step is to plan the individual and the class activities necessary to accomplish the work outlined. This planning is essentially a discussion activity involving all members of the class. Selections which should be read by all members of the class as a basic minimum requirement are identified, and a general class procedure is adopted. Selections from supplementary readers and reference materials which are to be read by individual pupils are located, and administrative procedures whereby these materials may be obtained are considered, together with the self-testing procedure and other details connected with the independent work.

The pupils are made acquainted with the location and the purposes of the various types of drill material and self-checking exercises available, and a time schedule is agreed on for the use of this material, which is completely individualized. The first three steps listed in the development of the unit may require from two to four reading periods.

4. *Carrying out the study-activities program.*—The heart of the reading program lies in the actual reading and study activities outlined in this step. The selections for class study are taken up first, the purpose being to familiarize all pupils with this common basic material. This activity may require a week or more. In the second stage of this step pupils pursue their work individually. Under the guidance of the teacher each child locates the selection or book that he desires, follows the study guide in reading it, and then reports to the teacher for an oral or written test of his mastery of the content. This activity may continue for two weeks or more with such variation as may be desired for purposes of remotivation, review, drill on reading skills, etc. The teacher endeavors to guide each child so that he will read material suited to his ability level and interest and so that he will do the widest possible amount of reading consistent with reasonable mastery of the content. This plan enables the pupil to progress at his own rate of reading and at his own level of comprehension.

5. *Socializing and discussion.*—Immediately following the study activities the pupils as a class discuss their findings in conversation. Opportunity is given for oral reports from committees or individuals. Choice selections may be read orally in real audience situations. The stage is set for the dramatic presentation of significant episodes in the reading completed and for the vigorous discussion of problems arising from the pupils' studies. These activities may continue for several days.

6. *Testing the objectives of the unit.*—As the final step in the development of the unit, the teacher and the pupils co-operate in evaluating the progress made. Tests are given to cover the basic content of the unit and the reading skills in both silent and oral reading. Records of test results are kept by the teacher and also by the pupils. These records include scores made in (a) rate of reading on standardized material, (b) comprehension tests, (c) number and titles of selections read for each unit, and (d) number and titles of books read in the library and in the home.

It will be observed that the plan of procedure outlined shifts much of the responsibility from the teacher to the pupil. These techniques are designed to develop in the child an urge to accomplish certain immediate goals which fit his needs and to provide the environment, equipment, and guidance necessary to foster the development of his independence as an intelligent worker.

The major functions of the teacher are (1) to guide the pupil in determining and motivating his reading purposes, (2) to provide the necessary reading materials, (3) to set the stage so that the child may pursue his work under the most favorable environmental conditions, (4) to assist the pupil in evaluating his own progress from time to time, and (5) to give such guidance and encouragement that the child may work intelligently and with confidence. Much of the teacher's time is spent at her desk in private conferences with pupils. Class activities, small-group activities, and individual instruction feature the class period as occasion requires.

TYPICAL ACTIVITIES

Class activities.—Certain types of exercises may be given with advantage to the class as a whole. Such activities as the following are

illustrative of class activities: (1) lessons designed to motivate reading activities, to develop appreciation, to give enjoyment, and to facilitate socialization; (2) lessons designed to introduce and develop the basic knowledges, skills, and habits which represent the program of minimum essentials for the grade;¹ (3) reading bulletins, directions relating to class activities, blackboard materials, etc.; (4) test exercises designed to reveal the range of abilities among members of the class.

Small-group activities.—If individual needs are to be adequately provided for, many teaching problems can be met only by forming small ability groups within the class and by frequent personal conferences between teacher and child. The following situations illustrate opportunities to employ such techniques.

1. The teacher meets with one small group for oral-reading practice while other members of the class are working independently.

2. Each of the various groups practices oral reading in subdued voices. One book of suitable difficulty for the group is passed in turn from pupil to pupil while other children listen and offer suggestions. For some types of reading, particularly in the upper primary grades, each member of the group may have a copy of the book used.

3. A small group of pupils, all of whom have read the same book, meet to discuss its qualities or to plan a dramatization of certain phases for the entertainment of the class.

Individual instruction.—The following types of individual instruction are much used.

1. The teacher meets the individual pupil in order to motivate his reading, guide his selection of books, and give constructive criticism and encouragement.

2. When a pupil finishes an exercise or a book, the teacher checks the accuracy of his comprehension by oral or written tests, by listening to a book report, etc.

3. The teacher gives the individual pupil the Gray Standardized Reading Check Test, or some other comparable test, as an aid in diagnosing oral-reading needs.

¹ Such class exercises may often be conducted with a variety of graded materials in the hands of the pupils. Basic vocabulary, phonics, etc., would be included here for the primary grades. Desire to learn to read must be stimulated in social situations.

The teacher will employ class activities, small-group activities, or individual instruction as the purposes and needs of the occasion require. The principle which will guide her in planning these activities is that each child, whatever his abilities, interests, and tastes may be, shall be fully employed under proper motivation with reading materials and activities that suit his needs and will challenge his efforts.

EXPERIMENTAL RESULTS

Evidence of the progress made by pupils during the experimental period was obtained from test results, from records of the nature and number of books read, from the reaction of pupils, and from the opinions of teachers.

Type A (reading to appreciate the general significance of a paragraph) and Type C (reading to understand precise directions) of the Gates Silent Reading Tests, Form 1, were given to all experimental classes on October 12, 1934. Form 2 of the same tests was given on May 15, 1935. All tests were administered by trained examiners and were scored by teachers who were not doing experimental teaching. The reports of the test results were prepared by the Research Department. Only scores made by pupils who took both tests were included in the tabulations made.

The comparative results obtained from these tests are reported in Table II for the third-grade classes involved in the study. It will be observed that, as measured by the tests used, these pupils made marked gains during the experimental period of seven months. Pupils of Section 1 made much greater progress than did the pupils of Section 3, particularly on Type C of the test. While important progress was made in the number of correct responses, equally significant improvement was shown in the percentage of correct responses. This index of reading is determined by dividing the number of exercises which are correct by the number attempted. The inaccuracy of these pupils at the beginning of the experimental period is clearly shown. It is particularly interesting to note that in both Types A and C the lower-ability sections tended progressively to show greater gains in the percentage of correct responses.

Tables similar to Table II were constructed for the other experimental grades. Since space will not permit the presentation of all

these tables, a summary of the average gains made on Types A and C combined is given in Table III. Normal progress for the experimental period is seven-tenths of a year's work. With the single excep-

TABLE II

AGE, INTELLIGENCE-TEST SCORES, AND RESULTS ON INITIAL AND FINAL TESTS ON TYPES A AND C OF GATES SILENT READING TESTS OF THREE EXPERIMENTAL SECTIONS OF THIRD-GRADE PUPILS

TEST	CHRONOLOGICAL AGE IN YEARS AND MONTHS	INTELLIGENCE SCORE	RESULTS ON READING TEST							
			Number of Correct Responses		Percentage of Correct Responses		Reading Grade		Reading Age in Years and Months	
			Type A	Type C	Type A	Type C	Type A	Type C	Type A	Type C
Section 1 (26 pupils):										
Initial test.....	8-7	104.7	7.1	6.0	76.7	51.7	4.0	4.0	9-7	9-7
Final test.....	9-2	104.7	13.0	14.9	91.4	84.0	6.0	7.5	12-0	13-9
Gain.....	0-7	.....	5.9	8.9	14.7	32.3	2.0	3.5	2-5	4-2
Section 2 (26 pupils):										
Initial test.....	8-6	95.0	3.0	2.5	69.6	36.7	3.1	3.1	8-7	8-7
Final test.....	9-1	95.0	10.9	9.4	90.2	82.6	5.1	5.0	10-11	10-9
Gain.....	0-7	.....	7.9	6.9	20.6	45.9	2.0	1.9	2-4	2-2
Section 3 (23 pupils):										
Initial test.....	8-10	84.5	1.1	1.0	27.9	18.4	2.9	2.9	8-5	8-5
Final test.....	9-5	84.5	7.0	6.7	91.1	64.7	3.9	4.0	9-7	9-9
Gain.....	0-7	.....	5.9	5.7	63.2	46.3	1.0	1.1	1-2	1-4
All sections (75 pupils):										
Initial test.....	8-8	95.1	3.8	3.3	59.3	36.3	3.4	3.3	8-11	8-11
Final test.....	9-3	95.1	10.4	10.5	90.9	77.6	5.0	5.6	10-10	11-6
Gain.....	0-7	.....	6.6	7.2	31.6	41.3	1.6	2.3	1-11	2-7

tion of Grade VI, the progress made by the experimental classes was extraordinary. The fact that the sixth-grade pupils made relatively less progress than the other experimental classes may be explained in part by the absence of the experimental teacher during several weeks of the period. Despite this interruption these pupils gained 0.1 of a year, or 14 per cent, more than the normal gain.

Accuracy in interpreting reading material is a fundamental ob-

jective in reading instruction. Unless the author's ideas can be accurately understood, reading is of doubtful value. Certainly, under such conditions attempts to improve rate of reading are futile. It is of primary importance, therefore, that any method which may be

TABLE III
GAINS IN READING GRADE MADE BY ALL EXPERIMENTAL
PUPILS IN GRADES III-VII

Grade	Number of Pupils	Gain in Reading Grade	Excess over Normal Gain for Period (0.7)
III.....	75	1.9	1.2
IV.....	101	1.2	0.5
V.....	57	1.6	0.9
VI.....	72	0.8	0.1
VII (School D).....	160	1.8	1.1
VII (School E).....	60	1.3	0.6

TABLE IV
PERCENTAGES OF CORRECT RESPONSES MADE BY ALL EXPERIMENTAL
PUPILS IN GRADES III-VII ON TYPES A AND C OF GATES
SILENT READING TESTS

GRADE	TYPE A*			TYPE C*		
	Initial Test	Final Test	Gain in Accuracy	Initial Test	Final Test	Gain in Accuracy
III.....	59.3 (M)	90.9 (VH)	31.6	36.3 (M)	77.6 (VH)	41.3
IV.....	92.7 (VH)	93.0 (VH)	0.3	84.2 (VH)	85.4 (VH)	1.2
V.....	95.4 (VH)	94.1 (VH)	- 1.3	72.0 (H)	82.2 (H)	10.2
VI.....	94.8 (H)	94.8 (H)	0.0	79.4 (H)	81.3 (H)	1.9
VII (School D)	95.8 (H)	96.6 (H)	0.8	80.7 (M)	91.5 (H)	10.8
VII (School E)	96.7 (H)	96.3 (H)	- 0.4	77.8 (M)	81.2 (M)	3.4

* The interpretations of the scores given by the author of the test are medium (M), high (H), very high (VH).

proposed for teaching reading be evaluated with reference to its effect on the accuracy of interpretation. Table IV has been prepared in order that the experimental method may be more readily judged with reference to this criterion. In this table the percentages of accuracy are reported separately for Types A and C, together with the test author's interpretations of the scores. Table IV should be inter-

interpreted as follows: On the initial test the percentage of correct responses of the seventy-five pupils of Grade III on Type A was 59.3. The author of the test considers this percentage a "medium" score. On the final test the percentage of correct responses of these same pupils was 90.9, which the author interprets as a "very high" score. The gain in the percentage of accuracy of these pupils during the experimental period was 31.6. The author explains his five-point scale for interpreting accuracy scores as follows:

It shows the range of accuracy scores obtained by each successive fifth of the pupils in a given grade. The "very high" scores obtained by the top fifth and the "high" scores obtained by the second fifth should be considered, in the author's opinion, as desirable and attainable objectives. Percentages in the "low" or "very low" range are to be treated as indications of a need for remedial work.¹

Despite the unusually large gains made by the experimental pupils in the number of correct responses, they also made gains, except in three grades, in the percentage of exercises correctly scored. The exceptions noted are Grades V, VI, and VII (School E) on Type A of the test. Although the pupils of these grades made no gain or slight losses, they still read with "very high" and "high" percentages of accuracy.

TEACHERS' EVALUATIONS

In order that teachers of reading in the various schools of the city might have opportunity to study the experimental procedures and equipment, provision was made for them to visit one or more of the six demonstration centers. Both principals and teachers availed themselves of this opportunity rather generally, and these centers often became meeting places for groups of teachers and students of reading.

As a further means of evaluating the experimental procedures, the deliberative judgment of the visiting teachers was ascertained by means of a questionnaire. The significant questions and replies are given in Table V. Seventy-five teachers and thirty principals responded, but some of the teachers and principals did not answer all the questions. One of the items of the questionnaire called for a paragraph of explanation. Since replies to this item could not be

¹ Arthur I. Gates, *Manual of Directions for Gates Silent Reading Tests, Grades 3 to 8*, p. 8. New York: Teachers College, Columbia University, 1935 (revised).

classified as "yes" or "no," it has not been included in Table V. The question read: "Does the experimental plan place a heavier teaching load upon the teacher? Explain." The majority opinion gave an affirmative answer to this question. Some of the replies suggested that, after the details of the experimental plan were completed, the

TABLE V
RESPONSES OF SEVENTY-FIVE TEACHERS AND THIRTY PRINCIPALS TO
QUESTIONS INVOLVING EVALUATION OF EXPERIMENTAL
PROCEDURES IN READING

QUESTION	FREQUENCY OF TEACHERS' RESPONSES		FREQUENCY OF PRINCIPALS' RESPONSES	
	Yes	No	Yes	No
1. Does the experimental plan present better opportunities for: The slow-learning child?	38	15	16	2
The typical child?	55	1	18	1
The bright child?	64	1	21	0
2. Is the plan too complicated for practical use by the typical teacher?	2	66	4	17
3. Should reading materials, as a general practice, be organized around large content units?	64	7	20	1
4. Should reading materials be classified with reference to difficulty level?	75	0	23	1
5. Does the experimental plan provide the child with a richer program of reading materials than the traditional plan?	73	0	22	2
6. Does the experimental plan promote independence in work on the part of the child?	70	0	22	1
7. Do the children like the experimental plan better than the traditional plan?	53	0	17	1
8. Do you wish to be furnished with the necessary books, supplies, and equipment in order that you may use the experimental plan next year in one or more grades?	61	9	29	1

teaching load would not be so heavy as that of the traditional method. It is of special interest to note the number of teachers who expressed a desire to use the experimental procedures although they were of the opinion that, by so doing, they would add to their teaching responsibilities.

CONCLUSIONS

A careful study of the values of the experimental procedures in teaching reading, in comparison with those of the traditional plan,

appears to give the experimental plan an advantage in the following respects: (1) Children of all types—bright, normal, and slow—have better opportunities to learn to read and to read to learn. (2) Children read under the stimulus of a personal and vital motivation. (3) The teacher is better able to meet the individual needs and interests of pupils. (4) The experimental procedures have greater practical value to the child since they typify more closely the methods of life outside the school. (5) Children like the experimental procedures better. (6) Children make better progress in the interpretation of reading materials. (7) A richer program of reading material is provided. (8) The money cost for books and supplies is less than that under the traditional plan.

It is well to note that the experimental procedures involved a fundamental change in the philosophy and methods of instruction. Such a change, if desirable, should be an evolutionary process. The transitional period is likely to be a time of concern and mental strain for the teacher. It is possible that the experimental techniques will require better training of teachers and a permanently heavier teaching load. These problems are only two of the many which await further experience and research.

GUIDE TO THE LITERATURE ON RURAL EDUCATION¹

ANNIE M. CHERRY, ANNE V. HOLDFORD
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The practical field worker or student of rural education seeking material on a particular problem immediately needs to run down two types of sources. He must locate both the best available literature on the problem applying directly to the rural field and additional material on education as a whole which may be applied to rural education.

This guide must accordingly consider both types of sources. It concentrates, however, on the first type, the sources dealing directly with rural-school problems. For the large body of material applicable to rural schools found in other educational literature, use the specific guides already available in these contributing fields.

INDEX HEADINGS AND INDEXES

The headings referring to rural education commonly used in library indexes are: "Agricultural," "Agriculture," "Farm," "Rural," and "School"; "Community Life"; "Consolidated Schools"; "Country Life"; "Farm Life"; "One-Teacher Schools"; "Sociology, Rural"; and "Transportation, School." "Rural Schools" also appears as a subheading under "Curriculum," "Libraries," "School Administration," "School Children," "School Finance," and "Supervision." See also specific topics relating to rural education, such as "Equip-

¹ This article is one of a series of guides to the professional literature of various phases of education initiated by Carter Alexander, library professor, Teachers College, Columbia University, and worked up by students in his courses. The list of the guides published up to the summer of 1935, with one exception, appears on pages 165-67 of Alexander's *How To Locate Educational Information and Data* (New York: Teachers College, Columbia University, 1935). The exception is "A Guide to the Literature of the Curriculum," by Alan O. Dech, in *Teachers College Record*, XXXV (February, 1934), 407-14. Information on later guides completed, under way, or contemplated, and the places of publication may be obtained from Professor Alexander.

ment in Rural Schools," "Parent Education," "Surveys," and "Teachers."

The best library indexes for locating references on rural education are: *Agricultural Index* (1916 to date), *Cumulative Book Index* (1928 to date), *Education Index* (1929 to date), *Industrial Arts Index* (1913 to date), *International Index to Periodicals* (1920 to date), *New York Times Index* (1913 to date), *Public Affairs Information Service* (1915 to date), *Readers' Guide to Periodical Literature* (1900 to date). For details on any of these indexes, look up its name in the index of:

ALEXANDER, CARTER. *How To Locate Educational Information and Data*. New York: Teachers College, Columbia University, 1935. Pp. xxvi+272.

BIBLIOGRAPHIES CONCERNED WITH THE WHOLE FIELD

Background of rural education

The best *brief* bibliography is a combination of these two references:

BRUNNER, EDMUND DES., and KOLB, J. H. *Rural Social Trends*. New York: McGraw-Hill Book Co., Inc., 1933. Pp. x+386.

KOLB, J. H., and BRUNNER, EDMUND DES. *A Study of Rural Society*. Boston: Houghton Mifflin Co., 1935. Pp. xiv+642.

The first of these gives good background information, and the second has full bibliographies on both general and specific phases. Both books stress the period from 1900 to 1930, neither taking the place of the other.

The best *extensive bibliography* is the annotated:

LANDIS, BENSON Y. *A Guide to the Literature of Rural Life*.¹ New York: Federal Council of the Churches of Christ in America, 1935 (revised). Pp. 16.

Keeping bibliographies up to date

Use *Information Service*, *Rural America*, and *Social Forces*, all described in this list under the heading of "Periodicals." See also the section "Index Headings and Indexes."

Rural education as a whole

Best brief bibliography

BUTTERWORTH, JULIAN E. "Principles and Practices in Rural Education," *Orientation in Education*, p. 406. Edited by T. H. Schutte. New York: Macmillan Co., 1932.

Five selected, unannotated, easily accessible references.

Best extensive bibliography

The Status of Rural Education. Thirtieth Yearbook of the National Society

¹ Referred to hereafter as the "Landis guide."

for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Co., 1931. Pp. xiv+272.

Bringing bibliographies up to date

The easiest way to bring bibliographies up to date is to use the *Education Index*, under the heading of "Rural Education," with cross-references. The bibliographies appearing monthly in the *Elementary School Journal* and the *School Review*, beginning in January, 1933, often have references bearing on rural education. *School Life* is also useful. See also the section in this list headed "Index Headings and Indexes."

BIBLIOGRAPHIES ON SPECIAL PHASES OF RURAL EDUCATION

Administration

For general references, see page 12 of the Landis guide, under the heading of "Education," subheading of "Administration and Supervision." Twelve unannotated references on the status of the rural-school superintendent and seventeen similar references on leadership in rural education appear at the close of chapters ix and x in:

Educational Leadership. Eleventh Yearbook of the Department of Superintendence of the National Education Association. Washington: Department of Superintendence of the National Education Association, 1933. Pp. 528.

Adult education

LANDIS, BENSON Y., and WILLARD, JOHN D. *Rural Adult Education*, pp. 203-23. New York: Macmillan Co., 1933.

Contains an extensive annotated bibliography listed under fourteen good headings.

AMERICAN ASSOCIATION FOR ADULT EDUCATION (Compilers). *Handbook of Adult Education in the United States*. New York: American Association for Adult Education, 1934. Pp. x+384.

Includes a directory of interested national organizations and a listing of significant local efforts. Rural programs are arranged by states on pages 4-15.

On page 13 of the Landis guide, preceding, are a few later references.

Agricultural extension work

On pages 211-12 of the Landis and Willard reference under "Adult Education," preceding, are twenty-one references covering various phases.

A few later references are on page 13 of the Landis guide, preceding.

Buildings, grounds, and equipment

"Rural School Buildings and Equipment," *The Outlook for Rural Education*, pp. 286-94. Research Bulletin of the National Education Association, Vol. IX, No. 4. Washington: Research Division of the National Education Association, 1931.

Nine well-selected, annotated references at the end of the article, with references throughout to many books.

SMITH, HENRY LESTER, and NOFFSINGER, FOREST RUBY. *Bibliography of School Buildings, Grounds, and Equipment*, Parts II, III, and IV. Bulletin of the School of Education, Indiana University, Vol. IX, Nos. 2 and 3, and Vol. XI, No. 2. Bloomington, Indiana: Bureau of Co-operative Research, Indiana University School of Education, 1933 and 1935.

With its references to previous listings, an exhaustive bibliography.

Consolidation

COVERT, TIMON (Compiler). *Good References on Consolidation of Schools and School Districts*. United States Office of Education Bibliography No. 27 (1934). Pp. 10.

Sixty carefully selected and annotated, recent, significant studies classified and indexed according to major emphasis.

DAWSON, HOWARD A. *Satisfactory Local School Units: Functions and Principles of Formation, Organization, and Administration*. Field Study No. 7. Nashville, Tennessee: Division of Surveys and Field Studies, George Peabody College for Teachers, 1934. Pp. x+180.

Well-selected, unannotated bibliographies at ends of chapters.

See also the later section in this list headed "Transportation."

Courses of study and curriculum

BRUNER, HERBERT B., and CASSELL, MABEL V. "Annual List of Outstanding Courses of Study," *Curriculum Journal*, VI (December 2, 1935), 1-9. Cleveland, Ohio: Society for Curriculum Study (% Western Reserve University).

The most recent comprehensive list, with references to former lists. The courses of study listed have been judged outstanding by the Curriculum Laboratory of Teachers College, Columbia University, and include both state and city school courses. They are classified according to elementary, junior high, and senior high school courses and are arranged alphabetically by subject. Rural courses are not segregated but are scattered through the lists. Complete lists with supplements may be secured from the Curriculum Laboratory for fifteen cents each for elementary, junior high, and senior high school courses.

DUNN, FANNIE W. (Editor). *Organization of Curriculum for One-Teacher Schools*. Washington: Department of Rural Education of the National Education Association, 1933. Pp. 44.

Lists twenty-two significant references covering all important pertinent topics.

The Foundations and Technique of Curriculum-Construction. Twenty-sixth Yearbook of the National Society for the Study of Education: Part I. "Curriculum-making: Past and Present." Bloomington, Illinois: Public School Publishing Co., 1926. Pp. xiv+476.

The selected and annotated bibliography (John A. Hockett, "The Literature of Curriculum-making: A Selected and Annotated Bibliography," pp. 449-75) in this publication includes references for rural schools. The book has also chapters on "Progressive Practices in Making State and Rural School Courses of Study" and "The McDonald County, Missouri, Experimental School," by George A. Works and Ellsworth Collings, respectively.

GAUMNITZ, W. H. (Compiler). *Good References on Small High Schools—Curriculum and Personnel Problems*. United States Office of Education Bibliography No. 26 (1934). Pp. 12.

Part I gives well-annotated references on the curriculum and the daily program.

Economics, rural

The Landis guide, previously cited, has a comprehensive bibliography of fifty briefly annotated references classified under ten significant headings.

Extra-curriculum activities

For special briefly annotated references in this field, see page 13 of the Landis guide, previously cited, under the heading of "Education," subheading of "Extra-curricular Activities."

Finance

Bibliography on School Finance, 1923-1931. Prepared for the National Survey of School Finance by Carter Alexander and Timon Covert. United States Office of Education Bulletin No. 15, 1932. Pp. x+344.

Includes 126 references on rural-school finance well classified under eight heads, with cross-references to others. The references given frequently indicate continuing publications, up-to-date numbers of which may be used.

Guidance

HATCHER, O. LATHAM, and FERRISS, EMERY N. *Guiding Rural Boys and Girls*. New York: McGraw-Hill Book Co., Inc., 1930. Pp. xviii+326.

Covers all phases of guidance for rural schools and related agencies. A bibliography appears at the end of every chapter save one.

For additional references, see page 13 of the Landis guide, previously cited, under the heading of "Education," subheading of "Guidance."

Health, rural

The Landis guide, previously cited, has annotated references on page 10.

High schools, rural and small

GAUMNITZ, W. H. (Compiler). *Good References on Small High Schools—Organization and Administration*. United States Office of Education Bibliography No. 25 (1934). Pp. 12.

Contains forty-nine annotated references well classified under eight headings, including one on "Bibliographies."

History

BURTON, WILLIAM H. *Introduction to Education*, pp. 363-80. New York: D. Appleton-Century Co., Inc., 1934.

The chapter gives a condensed account of the evolution of the rural school in the United States and has eleven good, briefly annotated references.

Libraries, rural

LATHROP, EDITH A. *A Study of Rural School Library Practices and Services*. Chicago: United States Office of Education with the co-operation of Carnegie Corporation of New York and American Library Association. Pp. 106.

A selected bibliography on pages 95-100 deals exclusively with school libraries and summarizations pertinent to this study.

For general rural public-library service, see page 11 of the Landis guide, previously cited, under the heading of "Library."

Measurement and tests

No satisfactory references dealing exclusively with rural schools were found. The following references are good for rural elementary schools and the first also for rural high schools:

LINCOLN, EDWARD A., and WORKMAN, LINWOOD L. *Testing and the Uses of Test Results*. New York: Macmillan Co., 1935. Pp. xii+318.

WEBB, L. W., and SHOTWELL, ANNA MARKT. *Standard Tests in the Elementary School*. New York: Ray Long & Richard R. Smith, Inc., 1932. Pp. xiv+532.

Methods of teaching, rural

GUSTIN, MARGARET, and HAYES, MARGARET L. *Activities in the Public School*. Chapel Hill, North Carolina: University of North Carolina Press, 1934. Pp. xx+290.

Practical application to a rural-school situation, with a final bibliography and one at the end of nearly every chapter.

LOWTH, FRANK JAMES. *The Country Teacher at Work*. New York: Macmillan Co., 1930. Pp. xii+542.

Bibliographies at chapter ends cover all phases.

Parent education

The Landis and Willard reference given under the preceding heading "Adult Education" has, on pages 214-16 under the heading of "Parent Education," nineteen well-selected, annotated references.

Public relations

No satisfactory specific material was found, but valuable items may be adapted to rural schools from the references at the ends of the chapters in:

FARLEY, BELMONT. *School Publicity*. Stanford University, California: Stanford University Press, 1934. Pp. 118.

Sociology, rural

The Landis guide, previously cited, has, on pages 8-9, twenty-six references under the heading of "Sociology and Social Problems," classified under four significant headings.

Supervision

ANDERSON, C. J., and SIMPSON, I. JEWELL. *The Supervision of Rural Schools*. New York: D. Appleton & Co., 1932. Pp. xiv+468.

The unannotated, selected references at chapter ends form a good topical bibliography on all phases of rural supervision.

Surveys, rural

EATON, ALLEN, and HARRISON, SHELBY M. *A Bibliography of Social Surveys*. New York: Russell Sage Foundation, 1930. Pp. xlviii+468.

An extensive list of surveys concerned with rural schools, under such headings as "Rural," "Rural Education," "Rural Health," and others, listed alphabetically by states and nations, with good cross-references.

SMITH, HENRY LESTER, and O'DELL, EDGAR ALVIN. *Bibliography of School Surveys and of References on School Surveys*. Bulletin of the School of Education, Vol. VIII, Nos. 1 and 2. Bloomington, Indiana: Bureau of Co-operative Research, Indiana University School of Education, 1931.

Use classifications of "County" and "State."

For keeping up to date, use the series of *Bibliography of Research Studies in Education* of the United States Office of Education, consulting the heading of "Surveys" in the index.

Teacher training

National Survey of the Education of Teachers: Vol. I, *Selected Bibliography on the Education of Teachers*; Vol. V, *Special Survey Studies*, pp. 341-84. United States Office of Education Bulletin No. 10, 1933.

Volume I has annotated references indexed under "Rural School" and "Rural Teachers." Volume V includes a study by Mabel Carney, "The Preparation of Teachers for Small Rural Schools," which gives many footnote references.

WOFFORD, KATE. *An History of the Status and Training of Elementary Rural Teachers of the United States, 1860-1930*. Pittsburgh, Pennsylvania: Thomas Siviter & Co., 1935. Pp. vi+170.

Has an extended bibliography classified under heads denoting type of publication.

Transportation

COVERT, TIMON (Compiler). *Good References on Transportation of Pupils at Public Expense*. United States Office of Education Bibliography No. 24 (1934). Pp. 10.

A carefully selected and annotated bibliography of fifty recent significant studies classified and indexed by problems attacked.

See also the section in this list entitled "Consolidation."

ABSTRACTS

There are no abstracts dealing directly and separately with rural education, but numerous general series contain abstracts on materials in this field. To locate such abstracts, use the *Education Index*, under the heading of "Abstracts, Educational," and *Educational Abstracts*, which began publication in January, 1936.

BIOGRAPHY

BAILEY, LIBERTY HYDE, and BAILEY, ETHEL ZOE (Compilers). *R.U.S.: A Biographical Register of Rural Leadership in the United States and Canada*. Ithaca, New York: R.U.S., 1930 (fourth edition).

Includes staffs of colleges of agriculture and experiment stations above grade of instructor if persons are engaged in the agricultural side of the work.

Other data may be found in *Who's Who in Education* (1927), *Leaders in Education* (1932), and *Who's Who in American Education* (new editions almost annually, first in 1928 and sixth in 1934-35). Consult the reference librarian in any teacher-training institution.

BOOK REVIEWS

The *Education Index* (1929 to date) lists reviews under the heading of "Book Reviews," arranged alphabetically by the names of the authors of the books. Previously the *Book Review Digest* listed reviews of general and popular books, including some on rural education under the heading of "Rural Schools." Before the *Education Index* started, the *Book Review Digest* was more serviceable in this field. For strictly professional and technical books before 1929, try the periodicals most likely to review books on rural education, for example, the *Elementary School Journal* and the *School Review*.

DIRECTORIES

Educational Directory: Part I, State and County School Officers. United States Office of Education Bulletin No. 1 (of any year, for example, 1936).

Obtain from this publication the names of the members of the United States Office of Education or of any state department of education. Gives names and addresses of county superintendents by states.

PATTERSON, HOMER L. (Compiler and Editor). *Patterson's American Educational Directory*. Chicago: American Educational Co. Published annually.

Valuable because it gives the educational officers—rural, private, and others—for any community.

Directory of Agricultural and Home Economics Leaders and Directory of Vocational Teachers of Agriculture, Home-making, Trades, and Industries in the United States. Cambridge, Massachusetts: William Grant Wilson (777 Concord Avenue). Annually in May, with August and December supplements.

Lists workers for all educational activities in which the federal government has a part, for example, Extension Service or Smith-Hughes work.

Directory of Teachers Giving Courses in Rural Sociology and Rural Life. Washington: Bureau of Agricultural Economics, United States Department of Agriculture. Annual, mimeographed list.

Directory of Newspapers and Periodicals. Philadelphia: N. W. Ayer & Son. Annually.

The 1935 edition, on pages 1138-52, lists agricultural publications.

Yearbooks and bulletins of the various educational associations usually include an annual list of members, giving positions, addresses, and similar information. State departments of education often issue educational directories giving for rural education at least the administrative officers.

See also the preceding section in this list entitled "Biography."

EDITORIAL COMMENT

At present there is no nationally circulated journal with editorials dealing exclusively with rural education. *Agricultural Education*, the *Elementary School Journal*, the *Junior-Senior High School Clearing House*, and the *School Review* have editorial comment pertinent to related fields and sometimes directly to rural education.

See also the later section in this list on "Periodicals."

FOUNDATIONS

A list of all foundations aiding any phase of rural social welfare may be found in the following reference, which gives the purpose and the names and addresses of certain officers for each organization:

RUSSELL SAGE FOUNDATION LIBRARY (Compiler). *American Foundations for Social Welfare.* Library Publication L 1. New York: Russell Sage Foundation, 1930 (revised). Pp. 56.

PERIODICALS

School Life. Washington: United States Office of Education. Monthly, September to June.

Publishes well-selected articles on general progress of schools, with special emphasis on rural schools.

Rural America. New York: American Country Life Association, Inc. (105 East Twenty-second Street). Monthly, September to May.

This official organ of the association has in each issue a list, compiled by a committee of the American Library Association, giving excellent lists of current books, pamphlets, and periodical articles on rural schools, with pertinent comments.

Information Service. New York: Department of Research and Education, Federal Council of the Churches of Christ in America. Weekly except August.

Briefly summarizes social and economic developments throughout the world. Especially issued for ministers but is extremely valuable for teachers also. Each January number, beginning in 1924, reviews the significant facts, trends, and movements in rural life during the preceding twelve months.

Social Forces. Baltimore: Published for the University of North Carolina Press by Williams & Wilkins Co. Quarterly.

Carries articles, book reviews, and lists of new books on sociological subjects, including rural sociology.

For the period from September, 1921, through June, 1926, the *Journal of Rural Education*, official organ of the Department of Rural Education of the National Education Association, will be most helpful. At the end of that period it ceased publication.

The following publications have occasional articles dealing with rural education: *Educational Method*, *Elementary School Journal*, *Journal of Educational Research*, *Progressive Education*, *School Review*, *School and Society*, and *Teachers College Record*. It is easier to locate such articles by consulting the *Education Index*, if available, than by searching the volumes of the periodicals.

PROFESSIONAL ASSOCIATIONS

Educational Directory: Part IV, Educational Associations and Directories. United States Office of Education Bulletin No. 1 (of any year, for example, 1936).

Lists national, sectional, and state associations alphabetically, giving for each the name and address of the president and the secretary, the place and date of the next meeting. The more important associations for rural education are: National Education Association and Progressive Education Association, with affiliated rural-education departments; American Country Life Association; and Association for the Study of Negro Life and History. See also associations in related fields.

National Deliberative Committees in Education. Research Bulletin of the National Education Association, Vol. XII, No. 4. Washington: Research Division of the National Education Association, 1934.

The Topical Index, under the heading of "Rural Education" (page 233), lists five organizations sponsoring committees on rural education, giving for each organization the names of officers, scope and purpose, and report.

RESEARCHES COMPLETED

To locate completed researches, use such headings as "School Administration" and subheading of "Rural Education," or "Curriculum Studies" and subheading of "Agricultural Education," in the sources listed on page 225 of Carter Alexander's *How To Locate Educational Information and Data*, or "Rural Education" in the *Education Index*.

For agricultural education, use:

Summaries of Studies in Agricultural Education: An Annotated Bibliography of 373 Studies in Agricultural Education with a Classified Subject Index and a General Evaluation. United States Office of Education, Vocational Education Bulletin No. 180, Agricultural Series No. 47 (1935). Pp. 196.

A tangible expression of the interest and activity of the leaders of vocational education in agriculture relative to the organization and promotion of research in several states.

RESEARCHES UNDER WAY

See the list by Carter V. Good in the January number each year of the *Journal of Educational Research* and, for later months in each year, the news notes in the same periodical.

RESEARCHES NEEDED

CYR, FRANK W. *Responsibility for Rural-School Administration*, pp. 146-47. Teachers College Contributions to Education, No. 579. New York: Teachers College, Columbia University, 1933.

Lists a number of needed studies in rural-school administration, with one or two footnote references helpful on each.

ANDERSON, C. J., and SIMPSON, I. JEWELL. "Needed Research in Rural Supervision," *The Supervision of Rural Schools*, pp. 432-60. New York: D. Appleton & Co., 1932.

Reviews the researches to 1932 in rural supervision, suggests sixteen problems for research, and gives a four-page bibliography on the topic.

For other needed researches, look at the conclusion of any likely research on the phase of rural education in which you are interested.

STATISTICS

Valuable summary statistics on outstanding items are scattered through:

The Status of Rural Education. Thirtieth Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Co., 1931. Pp. xiv+272.

The pertinent statistics are, in general, to be sought in the chapter on "Statistics of State School Systems" in publications of the United States Office of Education. For this chapter before 1917, use the following volumes of the annual *Report of the United States Commissioner of Education*: before 1889, the single volume; for 1889, Volume II; for 1890 to 1906, Volume I; for 1907 to 1917, Volume II. For the years 1917-18 and later this chapter appears in the *Biennial Survey of Education* and also in a separate bulletin.

For the trends in recent years, consult the *Biennial Survey of Education* or separate chapters in bulletins of the United States Office of Education, as follows:

- 1919-20, Bulletin No. 29, 1923, pp. 1-108, 585-94
- 1923-24, Bulletin No. 23, 1926, pp. 341-91, 797-834
- 1925-26, Bulletin No. 25, 1928, pp. 567-616, 1037-1128
- 1927-28, Bulletin No. 16, 1930, pp. 423-96, 957-1092
- 1929-30, Bulletin No. 20, 1931, Vol. II, pp. 13-87, 685-779
- 1931-32, Bulletin No. 2, 1933, chapter i (advance pages)

To locate other publications of the United States Office of Education having statistics, see the heading of "Rural Schools" in *Price List 31*, free from the Superintendent of Documents at Washington.

Many of the Research Bulletins of the National Education Association give valuable general statistical data pertaining to phases of rural education. An issue devoted exclusively to the field is *The Outlook for Rural Education* (Volume IX, Number 4, 1931).

Statistical data on rural schools within a particular state are to be expected in annual or biennial reports and in special bulletins of the state department of education for that commonwealth.

For additional statistics on general topics useful to rural educators, see *Statistical Abstract of the United States*, latest *Census of the United States*, and *The World Almanac and Book of Facts*. Any library will almost certainly have these publications, and the reference librarian can give advice on how to locate in them the data needed.

PROCEDURES USED IN SELECTING SCHOOLBOOKS¹

II. SPECIFIC ASPECTS OF PROCEDURES USED IN CITY SCHOOL SYSTEMS

GERTRUDE WHIPPLE
Public Schools, Los Angeles, California

A difficult problem in schoolbook selection is that of evaluating the books. The difficulty is partly due to the limited time which school officials can devote to the work and to the extensive studies essential to adequate evaluation. Such evaluation usually involves determining the specific types of books needed, assembling available books which might satisfy the needs revealed, and making detailed comparisons of these books. The difficulty of evaluation is also due in part to the fact that school officials must often devise methods to be used. As an aid in the development of adequate procedures, this article² presents various practices followed in city school systems with respect to: methods of determining specific needs for books, securing titles for examination, standards used in evaluating books, methods of evaluation, consideration given to the course of study, methods of determining final recommendations, and causes of difficulties in selection. An analysis of these items aids in determining the variety and merit of practices in city school systems and suggests important problems.

METHODS OF DETERMINING SPECIFIC NEEDS FOR BOOKS

Twenty-four of the 135 school systems reporting in this study described their methods of determining specific needs for books. In

¹ For a more extensive and detailed discussion of the subject, see a forthcoming volume by the author, *Procedures Used in Selecting Schoolbooks*, to be published by the University of Chicago Press.

² In the first article in this series administrative procedures used in the same school systems were presented. The data presented were obtained from 135 school systems in cities with populations of 30,000 or more. These systems described their methods of selecting books for Grades IV, V, and VI. See Gertrude Whipple, "Procedures Used in Selecting Schoolbooks: I. Procedures Used in City School Systems," *Elementary School Journal*, XXXVI (May, 1936), 665-73.

some systems officials use the method of noting the number of requests for various titles, examining criticisms made of reading materials, estimating the number and condition of books on hand, or re-examining all titles which have been in use for five years or longer to determine whether these should be continued in use or replaced by new or revised books. In other systems a conference may be held with teachers, or a questionnaire may be sent to them occasionally or regularly to secure their reactions to materials in use and their suggestions for new books. In still other systems central-staff members confer with each principal on the needs of his school or ask the principal to survey his book supply and determine the number of books which meet minimum standards for the grade and subject. Other systems provide for the analysis of school records and of pupils' scores on standardized tests, obtain information from parents, or study the "children's background."

Important questions are inherent in these statements of practice. For example, what kinds of facts—the demands for various titles, criticisms of materials in use, pupils' scores on standardized tests, or other items—reveal best the types of reading material needed by a school system?

The reason why the majority of school officials failed to report on the determination of needs is not altogether clear. Perhaps some did not have time to give full descriptions of their procedures; others perhaps felt that they knew the needs of the system without special study, and still others probably did not regard the determination of needs as an essential part of book selection.

SECURING TITLES FOR EXAMINATION

More than 80 per cent of the school systems reporting described their methods of securing titles for examination. These methods include the following: interviewing publishers' representatives; sending notices to publishers; examining publishers' announcements of books; purchasing examination copies; borrowing samples from publishers for exhibits; visiting book stores; visiting publishers' exhibits; examining book lists and reviews in professional magazines; asking public librarians to suggest titles, to lend books for review, or to permit inspection of the list of children's books received; and asking

other staff members, such as school librarians, heads of central departments, and teachers, to recommend titles, with or without giving reasons for their preferences.

Interviews with publishers' representatives.—School systems have set up various regulations concerning interviews with publishers' representatives. Many cities reporting permit no conferences at all, while others make no restrictions. Certain other cities specify which officials are to hold conferences with publishers' representatives: the superintendent, the central staff, or the book committee. Other cities require that certain officials must not hold such conferences: teachers; teachers and principals; members of book committees; teachers and committee members; or principals, teachers, and committee members. Other cities permit any school official to hold conferences with publishers' representatives provided specified regulations are observed.

Notices to publishers.—Twenty-seven per cent of the school systems stated that they send notices to publishers. An examination of such notices showed that they specify the school subject and grade and sometimes describe the procedure to be followed in making selections and occasionally the standards to be used in evaluating books.

Handling of samples.—As sample copies are received, some cities place them in libraries of samples. Others collect samples in school libraries or central offices. Still others permit each staff member to handle sample copies as he sees fit.

Records of new titles.—Two school systems reported plans for systematizing the handling of samples and related information. In one system the publisher's representative is asked to fill in a brief with information concerning each sample submitted. The information is filed in the superintendent's office by school subjects. Only one copy of a book is accepted, which is then catalogued in the library of samples. In the second system¹ the superintendent's assistants record certain items of information concerning each title as it is received. The data are classified and filed according to publisher. Later, when books are examined, additional items are entered.

¹ This plan has been reported by A. C. Senour, "The Selection and Purchase of Supplementary Books," *Elementary School Journal*, XXX (September, 1929), 63-66.

STANDARDS OF EVALUATION

The term "standard" was understood by both co-operators and investigator to mean any quality or characteristic which describes the merits and limitations of a book. The co-operators who use score cards furnished copies; others enumerated the standards used. Summaries were prepared of the standards employed when score cards are used and when they are not used. The standards and the subpoints under each were recorded, as far as possible, in the wording of the school officials suggesting them. Each mention of an item was counted, and the total for all items was found. The percentage of the total frequencies of mention was then ascertained for each item.

At least two limitations should be pointed out in the data as summarized. First, the classification of the items is not altogether logical. Second, the frequencies of mention do not in every case represent the number of co-operators employing the standard. Both limitations are due to the fact that some of the subpoints relate to standards other than the item named by the co-operator. Allowance for these limitations should be made as the data are interpreted.

Standards reported when score cards are not used.—Table I shows the percentage of the total frequencies of mention given to each item reported by the co-operators who do not use score cards. Data are presented separately for textbooks, supplementary books, and recreational-reading books. Space does not permit full explanation of Table I or the subpoints not given in the table, but a brief examination of the entries in the table reveals three striking facts:

1. The standards in current use vary widely, as is shown by the fact that many items are listed in the table, some of which receive small percentages of mention. This finding is further emphasized by the fact that different co-operators reported different combinations of standards.
2. Greatest emphasis is placed on "Content" and "Physical makeup." Sixty-five per cent of the total frequencies of mention relate to these two items, the remaining 35 per cent being distributed over twenty other items.
3. Certain of the items reported receive similar emphasis for the three types of books, whereas other items receive varying emphasis.

TABLE I

ITEMS CONSIDERED IN SELECTING TEXTBOOKS, SUPPLEMENTARY BOOKS, AND RECREATIONAL-READING BOOKS WHEN SCORE CARDS ARE NOT USED AND PERCENTAGE THAT FREQUENCY OF MENTION OF EACH ITEM IS OF TOTAL FREQUENCY

Item	Text-books	Supplementary Books	Recreational Books	All Books
1. Content:				
a) Ease of comprehension	15.5	17.7	15.7	16.3
b) Value	8.5	11.5	33.0	15.4
c) Scope	1.8	4.1	1.7	2.7
d) Modern character of situations . . . . .	.7	.7	.6	.7
e) Avoidance of local prejudices . . . . .	.4	.7	.....	.4
f) Acceptability . . . . .	.....	.....	.6	.1
g) Length of stories . . . . .	.....	.....	.6	.1
h) Amount of subject matter on given topics . . . . .	.....	.3	.....	.1
i) Abundance of material . . . . .	.4	.....	.....	.1
j) Unspecified	1.9	1.7	1.1	1.7
Total	29.2	36.7	53.3	37.6
2. Physical makeup:				
a) Type	6.3	7.2	6.9	6.8
b) Binding	8.1	6.1	3.5	6.2
c) Illustrative material	4.8	5.4	7.5	5.7
d) Paper	2.6	3.1	2.3	2.7
e) General appearance	1.1	1.4	1.2	1.2
f) Size of book . . . . .	.4	.7	.....	.4
g) Shape of book . . . . .	.4	.3	.....	.3
h) Spacing of words and letters . . . . .	.4	.....	.....	.1
i) Length of line . . . . .	.....	.3	.....	.1
j) Scientific basis for physical makeup . . . . .	.....	.....	.6	.1
k) Unspecified	4.4	2.7	4.6	3.8
Total	28.5	27.2	26.6	27.4
3. Adaptation to specific needs:				
a) Curriculum needs	8.1	7.8	2.3	6.6
b) Unspecified	1.9	1.6	1.1	1.6
Total	10.0	9.4	3.4	8.2
4. Aids to instruction:				
a) Specific study helps	1.8	1.0	.....	1.1
b) Index . . . . .	.7	1.0	.....	.7
c) Table of contents . . . . .	.7	.7	.....	.5
d) Provision for efficient use by teacher	1.1	.4	.....	.5
e) Test material . . . . .	.7	.4	.....	.4
f) Quality of maps . . . . .	.4	.7	.....	.4
g) Originality of pupil activities . . . . .	.4	.3	.....	.3
h) References . . . . .	.4	.3	.....	.3
i) Notes . . . . .	.4	.3	.....	.3
j) Drill material . . . . .	.4	.3	.....	.3
k) Pupil material accompanying book . . . . .	.4	.....	.....	.1
l) Unspecified	0.7	1.4	.....	0.8
Total	8.1	6.8	.....	5.7

TABLE I—Continued

Item	Text-books	Supple- mentary Books	Recrea- tional Books	All Books
5. Method:				
a) Presentation	2.5	.....	.....	1.0
b) Psychological approach	1.8	0.4	.....	.8
c) Educational soundness . . . . .	.4	.7	0.6	.5
d) Recognition of group and individual differences . . . . .	.4	.4	.....	.3
e) Adaptation to mastery-unit technique . . . . .	.4	.3	.....	.3
f) Motivation . . . . .	.4	.3	.....	.3
g) Stimulus to further reading . . . . .	.....	.3	.....	.1
h) Sincerity of approach . . . . .	.....	.3	.....	.1
i) Unspecified	0.7	0.3	.....	0.4
Total	6.6	3.0	0.6	3.8
6. Price:				
a) Comparative price	3.3	3.4	4.0	3.5
b) Number of pages in relation to cost	0.4	.....	.....	0.1
Total	3.7	3.4	4.0	3.6
7. Type of book	1.1	2.7	4.6	2.5
8. Author or authors:				
a) Reputation . . . . .	.7	1.0	1.1	1.0
b) Experience in specific field . . . . .	.4	.....	.....	.1
c) Participation in research . . . . .	.4	.....	.....	.1
d) Unspecified	1.8	1.3	.....	1.2
Total	3.3	2.3	1.1	2.4
9. Organization:				
a) Clearness and strength . . . . .	.4	.3	.....	.3
b) Sequence of material . . . . .	.4	.....	.....	.1
c) Unity . . . . .	.....	.....	.6	.1
d) Unspecified	2.5	1.3	0.5	1.6
Total	3.3	1.6	1.1	2.1
10. Scientific basis for method and content	1.8	1.0	.6	1.2
11. Teaching use	1.5	1.6	.....	1.2
12. Purpose of book . . . . .	.7	.6	1.1	.8
13. Comparative merit . . . . .	.3	1.0	.6	.7
14. Recency of copyright date . . . . .	.7	.6	.6	.7
15. Point of view . . . . .	.3	.3	.6	.4
16. Adaptation to local conditions . . . . .	.3	.3	.....	.3
17. Usefulness in all sections of city . . . . .	.3	.3	.....	.3
18. Special features . . . . .	.3	.3	.....	.3
19. Edition . . . . .	.....	.3	.6	.3
20. Adaptations of classics . . . . .	.....	.3	.6	.3
21. Availability . . . . .	.....	.....	.6	.1
22. Publisher . . . . .	.....	0.3	.....	0.1
Total	100.0	100.0	100.0	100.0
Total frequency of mention	272	297	173	742

For example, there is marked uniformity in the percentages of mention for "Ease of comprehension" (Item 1-a) and "Type" (Item 2-a). The percentages of mention are highest for textbooks and lowest for recreational-reading books in the case of "Binding" (Item 2-b), "Adaptation to specific needs" (Item 3), "Aids to instruction" (Item 4), and "Method" (Item 5). The percentages are lowest for textbooks and highest for recreational-reading books in the case of "Content" (Item 1) and "Illustrative material" (Item 2-c).

Types of score cards submitted.—The school systems which use score cards submitted fifty-three score cards, which are of two general types: those in which no relative values are attached to the items and those in which weighted values are provided. Among the cards of the first type are some which have been elaborately worked out and others which seem to have been hastily made up for the occasion. Some call for descriptive answers. In others the items are to be rated "A," "B," or "C"; "excellent," "good," or "fair"; or on a scale of one to ten. Cards of the second type gave very different weights to the same item. For example, the number of points assigned to "Content" varied from three hundred to seven hundred in a total of a thousand.

Standards reported when score cards are used.—In an effort to determine the nature of score-card standards for textbooks, the items on twenty-four of the cards were summarized. The other cards were eliminated because they contain items applying to books in only one subject. Table II, showing the items considered on the twenty-four cards, reveals three facts concerning the score-card standards reported:

1. There is practically unanimous agreement concerning the importance of "Content," "Physical makeup," and "Aids to instruction" (Items 1, 2, and 3), as is shown by the high frequencies for each of these items.

2. There is wide disagreement concerning the importance of many standards. A large majority of the items listed are mentioned on only a few score cards and receive small percentages of mention.

3. Few of the qualities reported are described in objective terms. In fact, only 13 per cent of the total number of items listed on the score cards may be considered objective.

TABLE II
ITEMS CONSIDERED IN SELECTING TEXTBOOKS WHEN
SCORE CARDS ARE USED

Item	Percentage of Score Cards Mentioning Item	Percentage of Total Frequency of Mention
1. Content:		
a) Ease of comprehension.....	100.0	14.5
b) Value.....	100.0	13.1
c) Scope.....	70.8	4.4
d) Abundance of material.....	16.7	.6
e) Unspecified.....	8.3	0.5
Total.....	100.0	33.1
2. Physical makeup:		
a) Type.....	91.7	5.7
b) Binding.....	83.3	5.0
c) Paper.....	70.8	3.9
d) Arrangement of page.....	41.7	1.6
e) Lines.....	33.3	1.6
f) Illustrative material.....	33.3	1.3
g) Spacing of words and letters.....	25.0	1.0
h) Size of book.....	25.0	1.0
i) Width of margins.....	20.8	.8
j) General appearance.....	20.8	.8
k) Shape.....	12.5	.5
l) Size and clearness of marginal notes and index.....	4.2	.2
m) Weight of book.....	4.2	.2
n) Unspecified.....	8.3	0.3
Total.....	100.0	23.9
3. Aids to instruction:		
a) Study exercises.....	70.8	6.8
b) Graphic material.....	58.3	3.9
c) Index.....	58.3	2.3
d) Table of contents.....	45.8	1.9
e) Provision for efficient use by teacher.....	37.5	1.9
f) References and bibliography.....	33.3	1.3
g) Tests and norms.....	20.8	1.1
h) Preface.....	25.0	1.0
i) Pupil material accompanying book.....	20.8	1.0
j) Glossary.....	20.8	.8
k) Appendix.....	20.8	.8
l) Pronunciation aids.....	16.7	.6
m) Introduction to pupil.....	8.3	.3
n) Remedial material.....	4.2	.2
o) Title-page.....	4.2	.2
p) Drill material.....	4.2	0.2
Total.....	83.3	24.3

TABLE II—Continued

Item	Percentage of Score Cards Mentioning Item	Percentage of Total Frequency of Mention
4. Method:		
a) Development of reading habits and skills.....	25.0	1.4
b) Correlation with other subject matter and activities.....	20.8	1.0
c) Recognition of group and individual differences.....	16.7	.6
d) Variety in types of activities.....	16.7	.6
e) Provision for enrichment of vocabulary.....	12.5	.5
f) Flexibility of method.....	12.5	.5
g) Recognition of principles of psychology.....	8.3	.3
h) Opportunity to develop general principles.....	8.3	.3
i) Opportunity for pupils to discover cause and effect.....	8.3	.3
j) Attention to pupil interest.....	4.2	.2
k) Opportunity for applying general principles.....	4.2	.2
l) Topical emphasis.....	4.2	.2
m) Provision for supervised study.....	4.2	.2
n) Unspecified.....	12.5	0.5
Total.....	62.5	6.8
5. Objectives:		
a) Harmony with educational aims...	16.7	0.8
b) Desirable attitudes and economical habits and skills.....	8.3	.5
c) Strong motives for, and permanent interests in, reading.....	8.3	.3
d) Objectives of the course of study...	4.2	.5
e) Rich and varied experience.....	4.2	.2
f) Correct standards and ideals in use of English.....	4.2	.2
g) Vision of man in relation to his environment.....	4.2	.1
h) Ideals of high-grade human living..	4.2	.1
i) Unspecified.....	4.2	0.2
Total.....	45.8	2.9
6. Organization:		
a) Organization around significant problems.....	12.5	0.5
b) Psychological rather than logical organization.....	8.3	.3
c) Possibility of omissions without destroying sequence.....	8.3	.3
d) Organization within selections.....	8.3	.3
e) Placement of pedagogical material.	4.2	.2
f) Distribution, amount, and balance of drill.....	4.2	.2
g) Unspecified.....	16.7	1.0
Total.....	29.2	2.8

TABLE II—*Continued*

Item	Percentage of Score Cards Mentioning Item	Percentage of Total Frequency of Mention
7. Author or authors:		
a) Experience.....	20.8	0.8
b) Reputation.....	16.7	.6
c) Training.....	8.3	.3
d) Previous publications.....	4.2	.2
e) Scholarship.....	4.2	.2
f) Familiarity with scientific investi- gations.....	4.2	.2
g) Participation in scientific investi- gations.....	4.2	0.1
Total.....	25.0	2.4
8. Adaptation to specific needs.....	20.8	1.0
9. Series to which book belongs:		
a) Plan.....	8.3	.5
b) Gradation in difficulty.....	4.2	0.1
Total.....	12.5	0.6
10. Scientific basis for method and content	12.5	.6
11. Type of book.....	12.5	.5
12. Recency of copyright date.....	8.3	.3
13. General merit.....	4.2	.2
14. Special features.....	4.2	.2
15. Publisher.....	4.2	.2
16. Price.....	4.2	0.2
Total.....		100.0
Total frequency of mention.....		616

A comparison of the standards reported when score cards are used and when they are not used indicates that the number of qualities mentioned is far greater in the former case than in the latter. This difference indicates that score cards make explicit mention of items which do not usually receive separate attention.

METHODS OF EVALUATION

The methods used in evaluating books are fully as varied as the standards of evaluation. Altogether, 149 different methods were reported, which will here be called "specific methods." Analysis showed these to be variations of eleven general methods, and in Table III are shown the number and the percentage of times each general method was reported for use in evaluating three types of books. An examination of the data reveals the following striking trends and contrasts:

1. The methods most widely used are "Trying out books in the classroom," "Comparing and discussing personal judgments," and "Making personal examination."

TABLE III
FREQUENCY OF MENTION OF ELEVEN GENERAL METHODS USED IN
EVALUATING TEXTBOOKS, SUPPLEMENTARY BOOKS, AND
RECREATIONAL-READING BOOKS

Method	TEXTBOOKS		SUPPLEMENTARY BOOKS		RECREATIONAL-READING BOOKS		ALL BOOKS	
	Frequency of Mention	Per Cent	Frequency of Mention	Per Cent	Frequency of Mention	Per Cent	Frequency of Mention	Per Cent
Trying out books in the classroom.....	80	26.4	81	26.6	28	14.8	189	23.7
Comparing and discussing personal judgments....	59	19.5	75	24.7	46	24.3	180	22.6
Making personal examination.....	59	19.5	76	25.0	44	23.3	179	22.5
Consulting book reviews and other printed materials.....	24	7.9	37	12.2	47	24.9	108	13.6
Making score-card evaluation.....	71	23.4	20	6.6	7	3.7	98	12.3
Securing judgments of specialists.....	1	.3	2	.6	16	8.5	19	2.4
Making preliminary eliminations.....	6	2.0	6	2.0	1	0.5	13	1.6
Analyzing materials with respect to topics treated.....	2	.7	3	1.0	.....	.....	5	.7
Applying statistical procedures to content.....	.....	.....	3	1.0	.....	.....	3	.4
Analyzing materials with respect to duplication of selections.....	.....	.....	1	0.3	.....	.....	1	.1
Formulating guiding principles.....	1	0.3	.....	.....	.....	.....	1	0.1
Total.....	303	100.0	304	100.0	189	100.0	796	100.0

2. Methods of "Making score-card evaluation" are applied to textbooks more frequently than to supplementary and recreational-reading books.

3. Methods of "Consulting book reviews and other printed materials" are more widely used in evaluating recreational-reading books than in evaluating textbooks and supplementary books.

Further attention is directed to the three general methods which were most frequently reported, namely, classroom trial, comparison of personal judgments, and personal examination. The specific methods described in connection with each of these general methods will be presented. Limited space forbids discussion of the other methods listed in Table III.

Trying out books in the classroom.—Many different forms of classroom trial were reported by the co-operators. An analysis of the specific statements made revealed numerous variations in procedure. Only one teacher may try out the books, or several teachers, or all the teachers of a grade. Only one title may be tried out, or several different titles; or, after elimination of certain titles through trial, the two best titles may be tried again. Only one pupil may participate, or part or all of a class, or several different classes; and only one type of pupil or several different types, such as accelerated, average, and retarded pupils. The teacher may be asked "to give the books a trial," to carry out a certain general procedure, or to follow written directions for making the test. In order to determine a book's teaching value, the teacher may make general observations as pupils use the book, or she may give tests on the material read. To determine its interest value, she may read or tell a part of a story and note the effect, or she may place the book on reading shelves and note the number of times it is chosen by the pupils. After it has been on the reading table for a time, the story may be discussed and observations be made on the pupils' interest, or pupils may be asked to state their reactions on a form or to name the best book that they have ever read. The trial may extend over a few days, a semester, a year, or several years. The success of the book in the classroom may be observed by the central staff or be reported by the teachers concerned. Such differences in method suggest the possibility of wide variations in the validity of the conclusions based on trial use.

These findings show that much unsystematic experimentation is in progress and that there is need for more carefully controlled procedures. A valid trial is dependent on the observance of principles of experimental technique. For example, only one characteristic should be tested at a time, and identical procedure should be followed in making comparative trials of different titles. Again, the number of

pupils participating should be sufficient to insure statistical reliability of the data.

Comparing and discussing personal judgments.—School officials endeavor to compare their views and to analyze and then refine their judgments. According to some of the specific statements made, staff members compare their own judgments of a book with evaluations written by teachers. For example, teachers' reports are sent to the director of education, or a committee's recommendations are sent to the respective principals concerned and later discussed in a meeting with them. According to other statements, conferences are held between different officials, such as committee members, supervisors, and administrators. According to still other statements, meetings are called for the purpose of comparing and discussing judgments.

Making personal examination.—Personal examination varies from hasty skimming to careful analysis. Some school officials glance through the books, examine the table of contents and selected portions, or study the vocabularies. Others study the books in detail. Some school officials did not indicate the use of specific standards, while others examine the books in the light of definite criteria or compare them with titles of recognized value. Some committees inspect books in conferences, while others request each member to examine certain books and to report his impressions. The examination may be made as samples are received, at times set aside for the purpose, or during a brief period before making recommendations. It is noteworthy that personal examination and comparison of judgments were often the only methods of evaluation reported.

CONSIDERATION GIVEN TO THE COURSE OF STUDY IN SELECTING BOOKS

An essential aspect of book selection relates to the effect of the course of study on the procedures used. The successful carrying-out of the course of study depends to a marked extent on the provision of suitable materials. In this investigation school systems were asked which of three practices they follow in selecting textbooks and supplementary books, namely, giving preference to books if they fit in with the course of study (Practice A), selecting books entirely on their own merits (Practice B), and following whichever practice

seems better at the time (Practice C). For both types of books Practice C was most frequently reported. Practice A ranked second for both types; Practice B, third. The data also showed that Practice A is used more widely for textbooks than for supplementary books, while Practice B is used more widely for supplementary books than for textbooks.

School systems were also asked to describe the methods used in giving consideration to the course of study in selecting each kind of

TABLE IV
CAUSES OF DIFFICULTY ENCOUNTERED IN BOOK SELECTION
AND FREQUENCY OF MENTION OF EACH

Cause	Frequency of Mention	Percentage of Total Frequency of Mention
Lack of adequate methods of selecting books	33	27.2
Incompetency of staff members who select or use the books.....	26	21.5
Lack of certain types of books.....	22	18.2
Lack of funds.....	12	9.9
Unfair practices of publishers' representatives.....	8	6.6
Lack of valid standards of evaluation.....	6	5.0
Limited time.....	6	5.0
Ill effects of certain state requirements....	4	3.3
Dissatisfaction with previous selections....	4	3.3
Total.....	121	100.0

book. Few reports were received on this point. The replies received were extremely vague and general. The failure of some school systems to report methods may be due to the fact that they do not have a course-of-study manual but permit teachers to develop the curriculum progressively under the guidance of the central staff. It is possible also that the relationships which should exist between the course of study and the materials to carry it out are not clearly understood.

METHODS OF DETERMINING FINAL RECOMMENDATIONS

The work of evaluating books serves its greatest usefulness only as the findings are carefully analyzed and interpreted as a basis for

determining recommendations. Of the 135 school systems reporting, only 28 listed specific methods of determining final recommendations. These methods were classified under the general method indicated, and the frequency of mention of each was found, with the following results: agreeing through discussion, 17; voting, 15; following results of score-card ratings, 5; and deciding individually, 2.

CAUSES OF DIFFICULTY IN BOOK SELECTION

Of the 135 co-operators, 60 supplied information concerning the difficulties encountered in book selection. It was found that the statements could best be classified according to the cause of the difficulty indicated. The frequency of mention of each cause is presented in Table IV.

CONCLUSIONS

The facts presented indicate clearly that book selection is in a stage of trial and error. The practices reported vary from the briefest consideration of books to elaborate analysis, from questionable to apparently sound practices, and from altogether subjective to scientific steps in selection. In addition, the following significant conclusions may be reached:

1. Many valuable methods of securing titles for examination are in use. However, only a few cities employ systematic methods of handling samples and related information. Since many new books are published every year, the development and the use of systematic methods are essential to efficient selection.

2. The specific types of books needed are rarely determined before evaluating materials. The importance of determining needs is evident in view of the wide variations in pupil achievement in Grades IV, V, and VI.

3. The standards of evaluation reported vary widely. They include highly objective items as well as items that are entirely subjective. The score cards range from brief lists of general items to elaborate scales containing carefully weighted standards. These findings show the need for developing additional objective standards for evaluating books.

4. Numerous methods of evaluation are in use. Some are concerned with the general merit of books and others with specific char-

acteristics. Some provide for careful analysis of books, and others for superficial inspection. It is evident that much scientific work remains to be done in this field.

5. Current practices fail to insure the selection of books adapted to specific teaching purposes. There is therefore need for careful analysis of the purposes which books should serve in fulfilling the aims of the course of study.

6. Few methods of determining recommendations were reported. Those described gave little information on the specific techniques used. These facts indicate the need for analytical reports of the methods employed in reaching decisions in book selection.

7. School officials are aware of many of the deficiencies in their procedures. Inherent in the data concerning causes of difficulty in selecting books are highly significant implications which suggest such questions as the following: Who is to overcome the deficiencies reported by school officials? If enough suitable books are not actually available, what steps should be taken? If deficiencies are due to method, how may adequate methods be developed?

The foregoing analysis and discussion reveal the need for experimental studies of many of the problems involved and for the development of more objective techniques for use in book selection.

[To be concluded]

A RECORD OF TWENTY-FIVE SPECIAL PROMOTIONS

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This article reports certain facts about the educational progress of twenty-five children in the schools of the Panama Canal Zone who were given special promotions of one entire grade in the upper elementary school. The data are too limited to serve as a basis for generalization, but they may contribute to such generalization when considered with the findings of other studies.

The special promotion of these children was a routine matter, and the data reported, with the exception of the teachers' opinions, were taken from routine school records. The twenty-five cases represent all the specially promoted pupils who were in Grades IV or V at the time of the promotion and who were still in school eight semesters later. These pupils were given promotions because on standard tests they exceeded the median of the next grade and otherwise satisfied the rules for special promotions that had been set up in the school system. As the policy of giving special promotions was not inaugurated until after the opening of the schools in October, 1930, these special promotions were not actually made until December of that year. During the balance of that school year the pupils who were promoted were placed in groups made up entirely of specially promoted children, and their instruction, instead of skipping part of a year's work, was speeded up to cover two years in one. After the first year no further effort was made to give special instruction to these children.

The record of the specially promoted children, or "special pupils," is compared with the record of children not specially promoted, the "regular pupils." These regular pupils were a chance-selected group of pupils who had been in school during the entire period covered by the investigation and who had taken the tests used in this study. All were in Grade V during the school year 1930-31 and had progressed

regularly to Grade IX in 1934-35. These regular pupils were not a control group in the proper sense of that term, but their records help to interpret the records of the special pupils.

The special pupils had a mean chronological age 10.5 months less than that of the regular pupils when grade location was equalized. The mean intelligence quotient of the special pupils was 125.4, with a standard deviation of 12.5, while the intelligence quotient of the regular pupils was 112.1, with a standard deviation of 10.1.¹ Before the special promotions the mean mark² of the special pupils was 3.1, with a standard deviation of 0.45, while the regular pupils averaged 2.8, with a standard deviation of 0.54.

A comparison of the records of the two groups is shown in Table I. If the special pupils benefited by their special promotions, an increase in their mean educational quotient would be expected. The gain in educational quotient made by the special pupils was substantial, but the same may be said of the regular pupils.³ The better gain of the special pupils may have been due to their more intensive work resulting from their special promotion, or it may have been due to their greater intelligence.

Another measure of achievement is the achievement quotient, obtained in this case by dividing the educational quotient by the intelligence quotient. The figures in Table I show that the special pupils also gained more than the regular pupils in achievement quotient. If the achievement quotient eliminates the factor of intelligence from the measurement of achievement, as it is supposed to do, this greater gain probably is significant.

In these comparisons between the special and the regular pupils, the factor of group competition has not been reflected. The marks

¹ The intelligence quotients were determined by administration of the National Intelligence Test. In nearly all cases the intelligence quotient used in this study is an average of the intelligence quotients determined by administration of both Scale A and Scale B, with an interval of more than a year between.

² The numerical values of the marks were arrived at by giving each A a value of 4; each B, 3; each C, 2; each D, 1; and each F, 0.

³ The median score of the regular pupils' grade as a whole increased sufficiently between the testing in October, 1930, and that in May, 1932, to give an increase of six points in educational quotient. The educational quotient of the group was secured by dividing the median educational age by the median chronological age.

TABLE I

EDUCATIONAL QUOTIENT AND ACHIEVEMENT QUOTIENT ON
NEW STANFORD ACHIEVEMENT EXAMINATION AND
MARKS OF 25 PUPILS RECEIVING SPECIAL PROMOTIONS
AND OF 26 PUPILS PROGRESSING AT REGULAR RATE

Group of Pupils	Mean	Standard Deviation
Educational Quotient		
Special pupils:		
October, 1930.....	121.4	10.2
May, 1932.....	133.9	12.9
Gain.....	12.5	2.7
Regular pupils:		
October, 1930.....	108.4	5.6
May, 1932.....	116.3	9.2
Gain.....	7.9	3.6
Achievement Quotient		
Special pupils:		
October, 1930.....	97.1	7.3
May, 1932.....	108.4	6.1
Gain.....	11.3	- 1.2
Regular pupils:		
October, 1930.....	95.6	6.0
May, 1932.....	102.5	6.1
Gain.....	6.9	0.1
Marks		
Special pupils:		
June, 1930 (before special promotion)	3.1	0.45
January, 1931 (first semester after promotion).....	2.6	0.44
Change.....	- 0.5	-0.01
June, 1934 (eighth semester after promotion).....	2.3	0.64
Change from June, 1930.....	- 0.8	0.19
Regular pupils:		
June, 1930.....	2.8	0.54
January, 1931.....	2.7	0.52
Change.....	- 0.1	-0.02
June, 1934.....	2.7	0.62
Change from June, 1930.....	- 0.1	0.08

earned by the two groups give a measure of this factor. The changes in average marks at marking periods after the promotions were not so favorable to the special pupils as were the other comparisons. One object of giving the special promotions was to put the bright children into groups that would offer real competition, and the data on marks might be interpreted to mean that this object had been achieved. On the other hand, if the data mean that, before their special promotions the children were doing superior work but that thereafter they were doing only a little better than average work, there is cause to pause. Teachers' marks, of course, are subjective, and they take account of items other than actual scholastic ability. That these marks are a fair measure of the scholastic achievement of these special pupils is doubtful. In May, 1932, the special pupils had a mean composite score on the New Standard Achievement Examination higher than the median of the grade above that in which they were located, yet their average mark at this same period was only 2.6 (equivalent to C+) in a system where the normal curve is followed with fair consistency in assigning marks. Whatever the reason for the drop in marks, there is no questioning the fact.

The subjective opinions of the teachers on how the special pupils compared with the other children in their new grades and also on the success of the special promotions were secured by asking the teachers who taught the special pupils during the second year after the promotion had been made (1931-32) to answer the following questions about each special pupil: "How does this child's social maturity compare with that of others in your group?" "How does the child's mental maturity compare with that of others in your group?" "Has the child benefited from the special promotion?"

The returns on these questions, for the twenty children whose teachers answered the questions, are shown in Table II. These teacher judgments should perhaps not be given too much weight, since they were entirely subjective and may not have received a great deal of thought. Nevertheless, the opinions of the teachers best acquainted with the children indicate that all except one of the children were at least average in social and mental maturity in their new grade and that in nearly all cases the special promotion had been a positive advantage. The one child who was considered below aver-

age in both social and mental maturity and who was thought not to have profited from the promotion is the same child in each case. His difficulty did not appear to be lack of mental ability, for on two well-separated intelligence tests he rated intelligence quotients of 131 and 138, respectively.

TABLE II
JUDGMENTS OF TEACHERS CONCERNING 20 PUPILS WHO
HAD SPECIAL PROMOTIONS AND MEAN TEST
STATUS OF SAME PUPILS

Question	Number of Pupils	Mean Test Status*
How does child's social maturity compare with group average?		
Above.....	6	+1.5
Average.....	13	+1.2
Below.....	1	+0.7
How does child's mental maturity compare with group average?		
Above.....	10	+1.5
Average.....	9	+0.8
Below.....	1	+0.7
Has child benefited from special promotion?		
Yes.....	16	+1.2
Uncertain.....	3	+1.2
No.....	1	+0.7

* The mean test status is shown in terms of school years on the Canal Zone table of norms for the New Stanford Achievement Examination. Zero indicates average achievement for the grade in which the pupil is placed at the time; +1.5 indicates achievement a year and a half above the grade in which the pupil is placed; etc.

SUMMARY

Twenty-five elementary-school pupils given special promotions in 1930 gained more in educational quotient and achievement quotient than did a group of pupils at the same level who progressed normally. The average teacher-assigned mark of the special pupils dropped from B+ to C+. The teachers of the special pupils considered that most of the children had benefited from the special promotion. The test data indicate that the special promotions were profitable, but the teacher-assigned marks raise a question on this point.

SELECTED REFERENCES ON FOREIGN EDUCATION

JAMES F. ABEL

United States Office of Education

During the year the studies of education as it appears in a number of countries include the following phases: agricultural education in the world, school systems in general and business education in particular, teachers' associations, post-war education in Europe, the professional training of primary-school teachers, the training of secondary-school teachers, the rôle and the training of the librarian, and social hygiene in the British Empire. An English edition of the handbook of cultural institutions in China is very welcome to American students. In the history of education the twelve months have brought forth histories of French and foreign universities from their beginnings to our day, the boy through the ages, democratic education in modern China, the education of Chaucer, lives of educational workers in Canada and in London, the hedge schools of Ireland, rural education in Scotland, and education in Tasmania. Official reports have come from the press in about the usual form and numbers.

GENERAL REFERENCES

298. BUREAU INTERNATIONAL D'ÉDUCATION. *Annuaire international de l'éducation et de l'enseignement, 1935*. Publications du Bureau International d'Éducation, No. 43. Geneva: Bureau International d'Éducation, 1935. Pp. 446.

The third of a series of annual publications intended to outline the chief educational events of the year. This report is for the year 1933-34 and contains statistical data and other information from forty-seven countries.

299. BUREAU INTERNATIONAL D'ÉDUCATION. *La formation professionnelle du personnel enseignant primaire*. Publications du Bureau International d'Éducation, No. 42. Geneva: Bureau International d'Éducation, 1935. Pp. 402.

Deals with the training of primary-school teachers. Compiled from data furnished by sixty-two countries in reply to a questionnaire.

300. BUREAU INTERNATIONAL D'ÉDUCATION. *La formation professionnelle du*

personnel enseignant secondaire. Publications du Bureau International d'Éducation, No. 40. Geneva: Bureau International d'Éducation, 1935. Pp. 206.

Deals with the training of secondary-school teachers. Compiled from data furnished by fifty-one countries in reply to a questionnaire.

301. BUREAU INTERNATIONAL D'ÉDUCATION. *Le travail par équipes à l'école*. Publications du Bureau International d'Éducation, No. 39. Geneva: Bureau International d'Éducation, 1935. Pp. 230.

A compilation of data taken from reports on group methods in instruction, such as the Decroly method, the project method, the Jena and the Cousinet methods.

302. DUGGAN, STEPHEN. *A Student's Textbook in the History of Education*. New York: D. Appleton-Century Co., Inc., 1936 (revised). Pp. xxi+486.

A detailed study of the history of education from ancient Jewish and Greek times to the most recent systems in England, France, Germany, Italy, Russia, and the United States.

303. *The Examination Tangle and the Way Out*. Report of the International Commission on Examinations of the New Education Fellowship. London: New Education Fellowship, 1935. Pp. 116.

A report prepared for the Seventh World Conference to be held in Europe in August, 1936.

304. HOFFMAN, M. DAVID, and WANGER, RUTH (Editors). *Leadership in a Changing World*. New York: Harper & Bros., 1935. Pp. xvi+418.

A selection of works from outstanding leaders of the world in philosophy, psychology, sociology, and economics.

305. INSTITUT INTERNATIONAL DE COOPÉRATION INTELLECTUELLE. *Holiday Courses in Europe, 1936*. Paris: Institut International de Coopération Intellectuelle de la Société des Nations, 1936. Pp. viii+68.

Printed in French, German, and English. Gives information about the places, dates, programs, fees, and facilities of the different holiday courses to be given in Europe in 1936.

306. INSTITUT INTERNATIONAL DE COOPÉRATION INTELLECTUELLE. *Rôle et formation du bibliothécaire*. Paris: Institut International de Coopération Intellectuelle de la Société des Nations, 1935. Pp. 386.

A study of the training and work of the librarian made from the replies given by thirty-five countries to a questionnaire.

307. INTERNATIONAL INSTITUTE OF AGRICULTURE. *Agricultural Education in the World: Vol. I, Europe, 1st Part*. Rome: Printing Office of the Chamber of Deputies, 1935. Pp. xiv+336.

The first of four volumes that the International Institute plans to publish on agricultural education in the countries of the world. It includes accounts for

Albania, Germany, Austria, Belgium, Bulgaria, Denmark, Danzig, Spain, Estonia, Irish Free State, Finland, France, Great Britain, and Greece.

308. INTERNATIONAL SOCIETY FOR BUSINESS EDUCATION. *A Comparative Study of School Systems in General and Business Education in Particular in Various Countries*. Supplement to the *International Review for Business Education*, Second Series, No. 18, June, 1935. Zurich: International Society for Business Education, 1935. Pp. 12+23 graphs.

Each of twenty-three countries furnished a graph of its general school system and of the organization of commercial instruction. Each graph is explained in four languages: English, French, German, and Italian.

309. KANDEL, I. L. (Editor). *Educational Yearbook of the International Institute of Teachers College, Columbia University, 1935*. New York: Teachers College, Columbia University, 1935. Pp. xviii+632.

This twelfth issue of the series, begun in 1924, treats teachers' associations. Accounts for seventeen countries are included.

310. KANE, W. *An Essay toward a History of Education*. Chicago: Loyola University Press, 1935. Pp. xvi+638.

A sketch of the aims and methods of education in Western civilization from primitive beginnings.

311. *Segunda conferencia interamericana de educación*: Tomo I, Memoria general, actas, y documentos; Tomo II, Temas oficiales; Tomo III, Temas oficiales. Santiago de Chile: Imprenta Universitaria, 1935.

Report of the proceedings of the Second Interamerican Conference on Education held at Santiago, Chile, in 1934.

312. STUART, DOROTHY MARGARET. *The Boy through the Ages*. London: George G. Harrap & Co., Ltd., 1931. Pp. 288.

A study of the daily life of the average boy from the epoch of the cave dwellers to the middle of Queen Victoria's reign. An analysis of the evolution of the modern attitude toward children from that of early times.

313. USILL, HARLEY V. (General Editor). *The Year Book of Education, 1936*. London: Evans Bros., Ltd., 1936. Pp. 1024.

The fifth of a series begun in 1932. The four parts of this volume deal with a review of post-war education, current events in education, problems of educational policy, and statistics and finance. For students of comparative education the first two parts are particularly valuable.

314. WORLD FEDERATION OF EDUCATION ASSOCIATIONS, THE INTERNATIONAL FEDERATION OF ASSOCIATIONS OF SECONDARY TEACHERS, AND THE INTERNATIONAL FEDERATION OF TEACHERS ASSOCIATIONS. *Synchronized Conferences, Oxford, 10th-17th August, 1935. Report of Proceedings*. London: Wyman & Sons, Ltd., 1935. Pp. xii+642.

The report of a conference important in many ways but especially so because it was the joint endeavor of three large international organizations.

BY COUNTRIES

AUSTRALIA

315. ELLIOTT, W. J. *Secondary Education in New South Wales*. Australian Council for Educational Research Series, No. 38. Melbourne: Melbourne University Press, 1935. Pp. 38.

Arranged in three chapters: "Secondary Education before the Year 1912," "From 1912 to 1931," and "Present Conditions and Future Developments."

316. REEVES, CLIFFORD. *A History of Tasmanian Education*. Australian Council for Educational Research Series, No. 40. Melbourne: Melbourne University Press, 1935. Pp. xviii+123.

A first volume dealing with the history of primary education from 1803. Secondary, technical, and other forms of education will be treated in a later volume.

AUSTRIA

317. AICHHORN, AUGUST. *Wayward Youth*. New York: Viking Press, 1935. Pp. xiv+236.

A discussion of the application of psychoanalysis to the treatment of delinquent youth, based on the experiences of the author, including among others those of teacher and of director of a child-guidance clinic established by the Vienna Psychoanalytical Society. The first edition was published in German in 1925.

CANADA¹

318. BRITISH SOCIAL HYGIENE COUNCIL, INC. *Empire Social Hygiene Year-Book, 1934*. London: George Allen & Unwin, Ltd., 1934. Pp. 510.

The first edition of a series that will be published annually. One dominion or group of colonies will be the subject of a special study for each edition. Canada is that subject in the 1934 edition.

319. DOMINION OF CANADA, BUREAU OF STATISTICS. *Annual Survey of Education in Canada, 1933*. Ottawa: J. O. Patenaude, Printer to the King's Most Excellent Majesty, 1935. Pp. liv+120.

The latest annual report on education in Canada. Includes a general discussion of trends, a list of education organizations, a list of educational periodicals, a bibliography of Canadian studies in education, and statistics.

320. KIRKCONNELL, WATSON. *A Canadian Headmaster—A Brief Biography of Thomas Allison Kirkconnell, 1862-1934*. Toronto: Clarke, Irwin & Co., Ltd., 1935. Pp. xii+156.

An unusually interesting biography.

CHINA

321. CHENG, RONALD YU SOONG. *The Financing of Public Education in China—A Factual Analysis of Its Major Problems of Reconstruction*. Shanghai: Commercial Press, Ltd., 1935. Pp. xvi+300.

¹ See also Item 160 in the list of selected references appearing in the March, 1936, number of the *Elementary School Journal*.

No other nation will need to spend as large amounts of money for education as China. This study is a good attempt to appraise the situation and offer a solution of the problem.

322. CHYNE, W. Y. *Handbook of Cultural Institutions in China*. Shanghai: Chinese National Committee on Intellectual Co-operation, 1936. Pp. 284+xxiv.

One of the most welcome volumes of the year. Gives students some insight into the various research and educational organizations and institutions in China.

323. DJUNG, LU-DZAI. *A History of Democratic Education in Modern China*. Shanghai: Commercial Press, Ltd., 1934. Pp. 258.

Written to give a broad view of the educational movements toward democracy in China and to point out some of the difficulties involved.

324. SHIH-CHIEH, WANG. *Education in China*. Shanghai: China United Press, 1935. Pp. 46.

A brief factual description written by the minister of education. Includes a list of universities, independent colleges, and technical schools.

CZECHOSLOVAKIA

325. TUROSIENSKI, SEVERIN K. *Education in Czechoslovakia*. United States Office of Education Bulletin No. 11, 1935. Pp. viii+182.

A detailed description of education in Czechoslovakia made from some months of study of the schools in the country itself.

ECUADOR

326. *Informe del ministro de educación pública a la nación, 1935*. Quito: Talleres Graficos Nacionales, 1935. Pp. 344+graphs.

The official report for 1935 on all phases of education in Ecuador. Typical of the reports issued by the Latin American nations.

ENGLAND

327. CURRY, W. *The School and a Changing Civilization*. London: John Lane the Bodley Head, Ltd., 1934. Pp. xvi+132.

A series of essays in which are examined some educational problems from the point of view of present-day needs.

328. GREAT BRITAIN, COUNCIL FOR ART AND INDUSTRY. *Education for the Consumer—Art in Elementary and Secondary School Education*. London: His Majesty's Stationery Office, 1935. Pp. 38+illustrations.

The first report of the council appointed in 1934 by the Board of Trade to deal with questions on the relations between art and industry. It treats of art as a part of general education and defines art as the "creation of beautiful things in any material by any process or with any tools."

329. GREENE, GRAHAM (Editor). *The Old School*. London: Jonathan Cape, 1934. Pp. 256.

A collection of essays describing life in various types of English schools as experienced by former students.

330. OTTLEY, D. CHARLES. *The Cinema in Education—A Handbook for Teachers*. London: George Routledge & Sons, Ltd., 1935. Pp. 142.

Presents good arguments for the use of motion pictures in the schoolroom and gives much practical advice.

331. PLIMPTON, GEORGE A. *The Education of Chaucer Illustrated from the School-books in Use in His Time*. London: Oxford University Press, 1935. Pp. x+176.

Interesting in its suggestions of how Chaucer may have been educated.

332. SWAINE, G. R. *The School and the Age*. London: Herbert Russell [1934]. Pp. xii+128.

A short survey of the principles on which the organization and educational program of Kingsmoor School are based. This school was founded in an effort to provide education for living as completely as possible in the twentieth century.

333. YOUNG, RUTH. *The Life of an Educational Worker (Henrietta Busk)*. London: Longmans, Green & Co., 1934. Pp. xxiv+140.

A tribute to the many years of service of one of the leading women in education in London.

FIJI ISLANDS

334. MANN, CECIL W. *Education in Fiji*. Australian Council for Educational Research Series, No. 33. Melbourne: Melbourne University Press, 1935. Pp. 138.

A factual account of education in a crown colony of about 1,000 islands with a population of 190,000, mainly native Fijians and East Indians.

FRANCE

335. D'IRSA, STEPHEN. *Histoire des universités françaises et étrangères des origines à nos jours: Tome II, du XVI^e siècle à 1860*. Paris: Éditions Auguste Picard, 1935. Pp. vi+452.

This volume and Volume I (Item 259 in the list of selected references appearing in the June, 1934, number of the *Elementary School Journal*) give a scholarly, comprehensive work of unusual value.

GERMANY

336. BOHM, RUDOLF, AND OTHERS. *Höhere Schule—Wozu? Sinn und Aufgabe*. Leipzig: Oswald Schmidt G.m.b.H., 1935. Pp. 230.

A publication of the *Deutsche Philologenerband* (Association of Higher or Secondary School Teachers of Germany) on the scope and purpose of the secondary school.

337. FLETCHER, ARTHUR WILLIAM. *Education in Germany*. Cambridge, England: W. Heffer & Sons, Ltd., 1934. Pp. 62.

- Observations of an Englishman on education in Germany, including a brief statement on National Socialism.
338. HILLER, FRIEDRICH. *Deutsche Erziehung im neuen Staat*. Langensalza: Verlag von Julius Beltz, 1935. Pp. 414.
An attempt to point out the fundamental and general lines of development of education in the new Germany.
339. KÖNIG, RENÉ. *Vom Wesen der Deutschen Universität*. Berlin: Verlag die Runde, 1935. Pp. 212.
Outlines ideas concerning university reform in Germany from the middle of the seventeenth century to the present, with special reference to the University of Berlin.
340. SELIG, ANNA. *Ideals and Methods of University Education in Germany*. Calcutta University Readership Lectures, 1931. Calcutta: Calcutta University Press, 1935. Pp. vi+40.
A series of three lectures delivered at the University of Calcutta, dealing with the "Ideals and Methods of University Education in Germany," "The German Student Self-Help Movement," and the "International Student Service."

INDIA

341. BRAISTED, PAUL JUDSON. *Indian Nationalism and the Christian Colleges*. New York: Association Press, 1935. Pp. 176.
The author attempts to answer two questions: Can the colleges remain Christian and continue under the eminent sway of public opinion? Must they continue to be foreign in their educational work?
342. LAMBERT, H. *The Foundations of English Teaching*. London: Oxford University Press, 1933. Pp. vi+66.
A discussion of the teaching of the English language, based on experience in the high schools of India.
343. ZUHURU'D-DIN, AHMAD M. M. *Present Day Problems of Indian Education*. Fort, Bombay: Fine Arts Press, 1935. Pp. 90.
Relates particularly to Moslem education. The author suggests ways to arouse interest in education among the masses of India and attempts to show that the Moslems can organize primary education around the teaching of the Koran.

IRISH FREE STATE

344. DOWLING, PATRICK JOHN. *The Hedge Schools of Ireland*. London: Longmans, Green & Co., 1935. Pp. xviii+182.
An account of the Popular Schools of Ireland in the later Penal Times.

JAPAN

345. *A General Survey of Education in Japan*. Tokyo: Department of Education, 1935. Pp. 76.
A brief official account of education in Japan.

SCOTLAND

346. MASON, JOHN. *A History of Scottish Experiments in Rural Education from the Eighteenth Century to the Present Day*. London: University of London Press, 1935. Pp. xii+208.

Begins with the Society in Scotland for Propagating Christian Knowledge in 1709 and closes with an account of present-day experiment, which gradually changed from a vocational to an educational ideal because of changes in educational outlook.

SOUTH AFRICA

347. McKERRON, M. *A History of Education in South Africa (1652-1932)*. Pretoria: J. L. Van Schaik, Ltd., 1934. Pp. 182.

Consists of seven chapters, each of which treats one phase of the educational system as it developed along the line of time. One chapter gives a good account of the language problem.

UNION OF SOVIET SOCIALIST REPUBLICS

348. FIELD, ALICE WITHROW. *Education in the Soviet Union—A List of Source Material in English with Comments and Introductory Notes*. Special Publication No. 1. New York: American Russian Institute for Cultural Relations with the Soviet Union, 1935. Pp. 32.

A good bibliography, especially valuable for those who are not familiar with the Russian language.

349. PINKEVICH, A. *Science and Education in the U.S.S.R.* New York: G. P. Putnam's Sons, 1935. Pp. 176.

With thirty-three million children in kindergarten, primary, and secondary schools and thirty million adults receiving some form of instruction, leaders in the Soviet Union are attempting to bring to its people all the wealth of knowledge which mankind has worked out. This book attempts to tell of the achievements and difficulties in that task.

Educational Writings

REVIEWS AND BOOK NOTES

A plan for integrating adult education.—At the present time there is throughout all civilized nations an increasing interest in the education of adults. This educational movement is not new. It has been growing for more than a century. Since the World War, however, its growth has been increasingly rapid, with the result that much of the program established is poorly organized and lacks integration.

The philosophical concept underlying the attention now being given to adult education is a growing belief that education should be continuous throughout life and not confined to the period of childhood and youth. This idea has recently received additional support through the results of experimental work done by Professor E. L. Thorndike and his associates in the field of adult learning. Increased leisure among the masses of working people has provided an opportunity for adults to participate in educational activities to a greater extent than ever before. The new inventions and discoveries of this age and the effects of these technological changes on social organization have undoubtedly served as an added incentive to adults to continue their education. Adult education is a necessity for many persons who are forced to readjust their vocational lives. It is also essential to a solution of the social and economic problems resulting from technological changes.

In a discussion of the problems of adult education Stacy² deals with the difficult problem of co-ordinating efforts and procedures and integrating the aims of adult-education programs. After a brief analysis of the problem the history of the co-operative agricultural extension work is traced from its beginning to the present time. Then follows a discussion of specific procedures for integrating adult-education programs and the formulation of a social philosophy for adult education.

The author, in the development of his thesis, refers to three major sources of information. First, he draws on his own personal experience as a worker in rural adult education. He then canvasses the literature in the field. Finally, through the use of a questionnaire he secures the opinions of leaders in adult education.

² William H. Stacy, *Integration of Adult Education: A Sociological Study*. Teachers College Contributions to Education, No. 646. New York: Teachers College, Columbia University, 1935. Pp. viii+148. \$1.50.

The historical study of co-operative agricultural extension, which is developed entirely from secondary sources, is one of the best brief descriptions available of the development of that program. The reader can scarcely fail to be impressed by the enthusiasm of the author and his satisfaction with the direction in which the program now seems to be developing. Possibly, too much time and energy are still being devoted to narrow vocational training, but progress is clearly in the direction of a broader type of education.

The social philosophy developed and the plan proposed for integrating adult-education activities are based largely on returns from the questionnaire. Replies to the questionnaire were received from departments of education, co-operative extension services, college and university extension divisions, state libraries, state teachers' associations, religious-education councils, and adult-education councils. The opinions given represent an excellent cross-section of the judgments of all professional workers in the field.

The author finds a solution for his major problem, the integration of adult education, in an organization of all adult-education activities in a classification referred to as the "seven great arts." The "seven great arts" are stated and restated in slightly different form several times throughout the book, but, as finally presented in the summary chapter, these are: (1) perfecting philosophies of life, (2) advancing co-operation, (3) using science, (4) increasing incomes, (5) improving uses of income, (6) improving uses of time, and (7) advancing beauty. Each of these "arts" is defined in terms of specific activities. As an example, under increasing incomes the following activities are listed: "helping individuals to function more effectively in society, improving vocational skills and purchasing powers, studying all of the various factors which affect and limit the individual's opportunities to earn and to achieve" (p. 105).

One of the most interesting sections of the book carries the title "Sociological Approach to Urban Adult Education." Here it is pointed out that the rural-urban conflict constitutes a problem of concern to all adult educators interested in synthesizing aims and in providing equality of educational opportunity. This problem has been accentuated by the increase in rural-urban relationships resulting from improved facilities for travel and communication. A report of the New York Adult Education Council on the adult-education program in metropolitan New York is reviewed, and the common elements of the New York program and the co-operative agricultural extension program are pointed out. The author reaches the conclusion that the interests of rural and urban people are comparable and that the underlying social philosophy for adult education may be the same for both groups even though the specific problems and endeavors vary.

Some parts of the adult-education program are rapidly becoming institutionalized, with the result that integration is secured through institutional direction. Adult elementary education is administered through the combined agencies of the federal and the state governments. The same is true of much of

vocational education. Emergency educational programs are supported by the federal government. Irrespective of these practices, however, the author concludes that there is little likelihood of significant integration in the immediate future through a consolidation of all education in publicly supported institutions. Other methods must be sought. It is pointed out that the American Association for Adult Education, as it now operates, is an important national integrating agency. In state programs two types of integrating agencies are found: (1) state supported education departments and institutions and (2) adult-education councils and committees. As a means of integrating adult education in a state, it is recommended that a council be established composed of members representing the agencies, the professional workers, and the adult-education consumers.

The most serious limitations of the study lie in its lack of objectivity and in its failure to present new information other than a variety of opinions. All the facts presented, aside from judgments, come from secondary sources. The conclusions are based primarily on the opinions of the author or of other workers in the field. In view of the disorganized situation in adult education at the present time, however, it would have been difficult to deal with the problem in a more objective manner, since techniques for such an attack on the problem are still largely undeveloped. Undoubtedly, it is better to have the judgments of experienced workers in the field than to have no judgments at all.

The book is well written, and the materials are well organized. The reader may not agree that the author has made the best classification that could have been made of the functions of adult education. He may not agree with the plan suggested for integrating activities and programs. The reviewer believes, however, that persons engaged in adult education will find it worth while to become familiar with this study. While the book cannot be considered a major contribution to the study of education, it will serve as an aid to the clarification of thinking in the poorly organized and rapidly expanding field of adult education. Integration of adult education is important. This book constitutes the best contribution yet made to the solution of that problem.

FLOYD W. REEVES

Modern methods in the education of the feeble-minded.—The total amount of literature concerned with feeble-minded and subnormal children is fairly large, but the number of books concerned specifically with methods of teaching these pupils, in the broad sense of the term, is not great. A recent addition¹ to this number should receive enthusiastic welcome. This book applies modern concepts of education to the teaching of mentally retarded children. To some extent the keynote of the book is a statement in the Introduction that the same general philosophy of education applies to all children, irrespective of intellectual abil-

¹ Christine P. Ingram, *Education of the Slow-learning Child*. Yonkers-on-Hudson, New York: World Book Co., 1935. Pp. xii+420. \$1.80.

ity. The interpretation of this philosophy is that *"each child shall be educated in keeping with his capacities, limitations, and interests, looking toward the happiest adjustment he can make in life and the most constructive contribution he can bring to society"* (p. ix).

The book is divided into three parts. Part I includes the Introduction, with definitions; a description of the mentally retarded child (defined as the child with an intelligence quotient between 50 and 75); and discussions of psychological principles applicable to the education of subnormal children, of the feeble-minded child in the community, and of educational objectives. Part II, which constitutes three-fourths of the book, is entitled "A School Program for the Mentally Retarded" and concerns itself with such problems as the selection of mentally retarded pupils, class organization and conduct, curriculum, and method. Throughout this section the unit plan is emphasized, and outcomes are stated in terms of "life-activities" rather than in terms of subject-matter achievement. Part III, consisting of one chapter, purports to deal with the education of borderline and dull-normal children (with intelligence quotients of approximately 70-89). It is too brief to do more than relate the teaching of the mentally retarded to the teaching of the dull-normal.

The title of the book is slightly misleading. By definition the author includes mentally retarded (feeble-minded) as well as borderline and dull-normal children in the category "slow-learning." However, since all theoretical material and much of the illustrative curricular material are applicable to dull-normal pupils, this inclusiveness is not a serious matter.

Although the author uses a terminology which substitutes "mentally retarded" for "feeble-minded" (these children will never be permanently named, having been called "feeble-minded," "underprivileged," "slow-learning," "backward," and what not), her terms are carefully delimited. The illustrative curricular content is excellent. The author's experience is evident, not only in her selection of units, but in her interpretation of the characteristics of these children. For example, by many repetitions she stresses the outstanding psychological fact that the feeble-minded child is unable to see relationships as readily as the normal child—a fact which, in the reviewer's judgment, cannot be too much emphasized. She shows thorough familiarity with testing materials applicable to the teaching of these children.

A great deal of the book could have appeared in any textbook on general method, for example, almost all of chapter xii. It is full of what are now pretty generally accepted educational maxims: "Conceived in its broadest aspect, learning may be thought of as a dynamic process . . ." (p. 37). "The more nearly the learning situation approximates a real-life one, the more effective will the learning be" (p. 46). Whether all the discussion of general method which the book contains is necessary, the reviewer would not attempt to say, but it is thoroughly evident that the author has made a consistent attempt to apply generally accepted concepts of "modern" education to the education of the feeble-minded.

The reviewer has but one criticism to offer, which is not in reality a criticism of Miss Ingram's book per se. He does not share the faith that, because an activity or a unit is called "lifelike" or "real-life," it is at once proof against criticism. Unless evaluated in a relative sense, these adjectives have almost no meaning. Many so-called "activity curriculums," "progressive schools," and "child-centered schools" have sought to justify, by the use of such shibboleths, activities which in a broad sense are as academic as the memorized subject matter that they fervently condemned. With respect to the feeble-minded this difficulty may not be a major problem. Miss Ingram states that the mentally retarded (feeble-minded) child "cannot be expected to understand the complexities of the social order, to contribute to the solution of problems, or in any way effect changes for the better. He can only be a follower" (p. 62). With this statement the reviewer agrees. Miss Ingram's material is well selected and practical, but, had the book made more of borderline and dull-normal children, the issue might be more clearly joined. For such children wouldn't a unit in sales resistance be as vital as a unit in caring for chickens, pigs, or Polled Angus? "Meaning no offense." Couldn't these children "specifically practice the habit" of discounting advertising propaganda? Could they not learn, for instance, that no cereal, however musically consumed, becomes muscle in ten seconds flat? But then, with respect to many *vital* units of *real life*, all levels of mental ability are, after all, "slow learning."

In its theoretical aspects the book has much in common with Kennedy-Fraser's *Education of the Backward Child* (New York: D. Appleton & Co., 1932). The omission of any reference to this excellent little book is interesting. Miss Ingram's book is, in the reviewer's judgment, the best textbook on the teaching of feeble-minded children available to teachers in American schools.

AUSTIN H. TURNEY

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Evolution of college examinations and marking systems.—A recent volume of the Harvard Studies in Education¹ by Mary Lovett Smallwood treats the historical development of examination procedures and marking practices in five American institutions of higher education. The study is based on an exhaustive investigation of original documents from Harvard, William and Mary, Yale, Mount Holyoke, and Michigan. This number of institutions, of course, does not provide a basis broad enough for accurate generalizations concerning the history of college examinations and marking practices in this country, but the study uncovers some significant facts about the changes in these selected institutions.

It is interesting to note that the earliest plan of listing students was not ac-

¹ Mary Lovett Smallwood, *An Historical Study of Examinations and Grading Systems in Early American Universities: A Critical Study of the Original Records of Harvard, William and Mary, Yale, Mount Holyoke, and Michigan from Their Founding to 1900*. Harvard Studies in Education, Vol. XXIV. Cambridge, Massachusetts: Harvard University Press, 1935. Pp. xvi+132.

according to the quality of their achievement but according to their social status. The antiquity of the four-point rating scale is also surprising. The general conclusions from the study seem to be that the examining process has shown some tendency toward improvement but that the college faculties, in their efforts to express an evaluation of the work of students and to report on the quality of achievement, have floundered from one system to another without arriving at any stable marking system.

There are no references to developments beyond the latter part of the nineteenth century. The report consequently does not touch on the introduction of objective examinations, the distribution of marks on the basis of the normal frequency curve, or other modern attempts to improve examinations and marking practices.

JOHN DALE RUSSELL

The size of public-school administrative districts.—Any study that throws further light on the desirable size of school districts is of vital importance to all persons interested in public-school administration and legislation. Because the public-school system of the country is administered largely through 127,000 units of local control and financial support and because the vast majority of these units are wholly unable to afford their own local professional leadership and administrative and supervisory services, many devices have been resorted to in the several states to overcome the limitations of small units. The formation of any scheme for making available local administrative and supervisory services for the public schools always involves the question: How large is an efficient unit? This question is answered in a dissertation by Briscoe,¹ who has approached the subject through analysis of the relation between the size of the local unit for public schools and the economical local administration and supervision of the schools. The analysis is based on data from ten states, representing every section of the United States and every type of school administrative unit.

Briscoe sets up three factors as criteria for determining the minimum size of local unit for administration and supervision of schools: (1) the ability of the unit to secure skilled and continuous educational leadership, (2) the economical use of the time of the leadership employed, and (3) the economical use of the funds spent for general control.

The first of these factors, the ability to secure leadership, depends on the ability to pay for skilled and continuous leadership and on the opportunities offered the leader for growth and achievement while in the service of the schools. With this analysis in mind Briscoe studies the actual practice in Maryland and Connecticut and concludes that the typical necessary salary is approximately \$3,600 a year. Further analysis of county, city, and township districts and of super-

¹ Alonzo Otis Briscoe, *The Size of the Local Unit for Administration and Supervision of Public Schools*. Teachers College Contributions to Education, No. 649. New York: Teachers College, Columbia University, 1935. Pp. xiv+110. \$1.50.

intendency unions leads to the conclusion that an administrative unit employs forty teachers or more before it pays the salary necessary to secure skilled and continuous leadership.

As to the economical use of the time of the leadership employed, Briscoe, after assuming that the superintendent should spend all his time in administrative and supervisory services rather than in teaching and clerical work, undertakes to determine the size of the unit at which it is found desirable to employ the first supervisory assistant to the superintendent and also the size at which a school unit tends to become a superintendency. Analysis of the types of districts enumerated above leads to the conclusions that the smallest superintendency should have forty teachers and that the first general supervisory assistant should be employed when the unit employs approximately fifty teachers. Furthermore, the unit typically pays enough for full-time secretarial service when it employs from forty to fifty teachers.

When the relation of size of the administrative unit to the economical use of money spent for general control is studied in terms of both the total cost of adequate control and the percentage of current expense required for that purpose, the conclusion is again confirmed that the minimum administrative unit should have at least forty teachers. Other pertinent conclusions are that there are apparently no further economies to be gained through size after the unit reaches 250 teachers and that there is a rapid increase in economy as the size of the unit increases up to between 70 and 100 teachers.

This study is confined closely to its narrow field of investigation and, as the author points out, leaves unexplored several important topics pertinent to further needed conclusions. It does, however, give scientific evidence as to the minimum size of the desirable local administrative unit for public schools and corroborates the conclusions reached in other studies of this subject.

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Training in how-to-study specifics.—Anyone acquainted with attempts to analyze and to classify the abilities which are operative in effective reading and study will recognize the exceeding difficulty of that undertaking. A close examination of a recent series of work-type readers for the upper grades¹ justifies the statement that the authors have carried through that difficult task better than it has ever been done before. Moreover, they have systematically interwoven training in specific reading abilities with a worthy body of subject matter.

¹ Gerald A. Yoakam, William C. Bagley, and Philip A. Knowlton, *Reading To Learn*: Book I, A Work-Type Informational Reader, pp. xvi+402, \$0.84; Book II, Gaining New Knowledge, pp. xviii+454, \$0.92; Book III, Exploring New Fields, pp. xvi+504, \$0.96. New York: Macmillan Co., 1935.

They definitely yet unobtrusively introduce pupils to the mental habits which constitute effective study reading and commendably guide the pupils through a cycle of constantly expanding practice in the applications of those abilities. The three volumes, *Reading To Learn*, are an excellent product.

The comments which the reviewer chooses to make are not offered as harsh criticisms of the instructional program embodied in *Reading To Learn*. Rather, the comments are intended to indicate the present chaotic condition of the how-to-study movement, even when treated by the latest and most competent experts.

The first comment deals with the classification of specific reading and study abilities. The authors group (notice the verb "group") seventy-three specific abilities in eight major categories which they call "Recognition," "Comprehension," "Organization," "Retention," "Location of Data," "Appreciation," "Reproduction," and "Integrated Procedures." It is quite obvious that such major categories cannot possibly be mutually exclusive. Moreover, the specific abilities which are placed under any of the main categories are not, and probably cannot be, mutually exclusive. For example, the ten study specifics which appear under the category "Organization" include at least five which, differently worded to be sure, direct attention to variations of essentially the same mental process. The general reading ability usually called "organization" is the capacity of the reader to grasp the order and sequence of ideas on the printed page. Five of the ten specific abilities grouped under "Organization" by the authors of *Reading To Learn* are "ability to plan," "ability to outline," "ability to rearrange facts in a new order," "ability to use organization keys—headings, marginal notes, etc.," and "ability to sense the author's arrangement." Note at once the facts that the last "specific" cited is identical in meaning with the main heading under which it is placed and that the first three specifics named are primarily inventive abilities which may be quite distinct from reading comprehension. This comment, it may be repeated, does not imply muddy thinking on the part of the authors. Indeed, they definitely and wisely avoid exact classification in favor of a general grouping of interrelated and overlapping study specifics. The comment does, however, indicate the seeming impossibility of isolating one mental process from others and calling it a specific. Even the psychologists apparently stay on safe ground: they write and speak of higher mental processes, but they are very vague indeed in drawing distinctions between them.

The second comment refers to the commonly accepted distinction, adhered to rigidly by *Reading To Learn*, between work-type reading and leisure-time reading. The authors say of each book that it is "not a literary reader, nor is it intended to take care of all the basic aspects of reading. It is a book made to serve a definite purpose—to aid the teacher to develop the attitudes, knowledge, skills, and habits that are essential to study or work-type reading" (p. x). From this position the books in hand never depart. So far as the reviewer can

discover, not one selection of even modest literary merit appears between the covers. Just why many of the specific reading abilities are not applicable, of course with differing degrees of emphasis, to the purposeful reading of *any* book—any short story, novel, essay, poem, or drama—as well as to the reading of uninspired factual material, is difficult to see. The fundamental reading processes are essentially the same in any reading; they differ only in their applications to differing materials and differing purposes of the readers. This artificial and academic distinction between work-type and leisure-type reading is commonly accepted and has many champions, including national committees on reading. Some few have the temerity to challenge it.

Reading To Learn, very definitely restricted in purpose to work-type reading, presents in three volumes only "the type of subject matter contained in history, geography, elementary science, nature study, biography, civics, and health" (p. v). In the presentation of such intellectual content to upper-grade children, the books certainly fulfil the promise of the Preface. They make use "of the opportunity to provide a fuller introduction to contemporary life than would otherwise be possible in the elementary school" (p. v). In this respect *Reading To Learn* is worthy of the highest praise. However, the reviewer is inclined to question the *miscellany* of content, the lack of unity and continuity of content through which this series (in this respect resembling almost all how-to-study series), leads the reader. In Book III, for example, interspersed among other chapters, are reading units entitled "Our Forests," "What Is Patriotism?" "Crime and Its Prevention," "The Pacific Ocean," "Lawyers and Their Work," "The Value of Newspapers," "How Life Insurance Protects Us," "What Is Good Taste?" "Learning To Think Correctly," and "The Symphony Orchestra." In the commendable and well-executed program of systematizing pupil experiences with specific reading abilities, in the laudable attempt to motivate reading experiences by fresh and intrinsically interesting materials, in the praiseworthy endeavor to make the content of the readers *touch life closely* as a by-product to training in reading proficiencies, is it absolutely necessary to lead pupils through an intellectual hodgepodge? Perhaps it is. It should be added that the individual chapters of *Reading To Learn* are intrinsically valuable in themselves. The few exceptions which test this generalization are represented by chapter xxiii of Book III entitled "Learning To Think Correctly." Instruction, however simplified in wording, on axioms, major and minor premises, conclusions, on seven intricate fallacies like "Reasoning in a Circle" is exceedingly questionable when presented to eighth-grade pupils. Such instruction may possibly be an example of one of the worst forms of educational waste: introducing immature minds to subject matter far beyond the assimilative capacity of a large majority of the learners.

These extended comments, which point out a few of the perplexing problems involved in teaching pupils how to read, have probably been met by *Reading To Learn* as well as they can be met in the present uncertainties of the super-

vised-study movement. In education, as in every other aspect of life, constructive workers often cannot wait for complete knowledge and unquestionable interpretations; they must produce the best instructional guidance they can with partial knowledge and tentative interpretations. The authors of *Reading To Learn* have offered a product that is unquestionably a distinct contribution in the field of reading and study, even though our present knowledge and interpretations are far from final.

R. L. LYMAN

Learning English through activities.—The advent of a new set of books in elementary-school language into an already crowded field carries a heavy obligation that the books offered shall be distinguished in theory and practice. To attract the attention and win the approval of administrators and members of textbook committees, the books must not only be original in organization, devices, and illustrations but must also reflect a philosophy of teaching harmonious with present ideals and, to some extent, prophetic of the future. It is in the light of these standards that *Today's English*¹ is here reviewed.

It is a common experience for visitors to elementary-school classes to find the "language period" given over to formalized instruction on the facts of language or to exercises wholly passive and uncommunicative in nature. Not only is there no opportunity for the free use of language, but the atmosphere of the room is chill with repression. Yet few teachers today will deny that language is a form of behavior, to be learned best in behavior situations, that is, by doing. To this philosophy of action the authors of *Today's English* give enthusiastic assent. They say: ". . . language expression is so completely a part of living that the nature of any individual's language is largely dependent upon the nature of that individual's life. . . . It therefore becomes the first duty of those who are interested in improving the quality of children's language . . . to provide as far as possible that richness and variety of desirable first-hand experiences which are the basis of effective language expression" (p. iii).

The organization of these books is designed to center a variety of activities in common topics of interest to children. Such headings as "Adventure with Books," "Saving Our Forests," and "Starting a Newspaper" indicate the trend of the units. Each book features a section on the appreciation of poetry, placing poetry where it belongs—in the expressional life of the child. Pronunciation, the making of reports, and the use of the dictionary receive full and careful treatment.

The formal aspects of language are confined pretty largely to the establishment of the English sentence. There is a laudable absence of grammar. Usage,

¹ M. R. Trabue and Bessie Bacon Goodrich, *Today's English*: Third Year, pp. xii+220; Fourth Year, pp. xiv+234; Fifth Year, pp. xiv+242; Sixth Year, pp. xiv+254. New York: Charles E. Merrill Co., 1935. \$0.72 each.

on the other hand, is presented constantly and forcibly, to train the eye and ear in the accepted patterns of English speech. It is not difficult, therefore, to recommend a series of language books which are sound in theory, consistent in practice, attractive in form, and beautifully illustrated.

ROBERT C. POOLEY

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